HOTSPOTS ANALYSIS AND REPORTING PROGRAM (HARP)

Database Management User's Manual (CEIDARS LITE DATABASE)

(Draft)

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Author's Note

This document is the first draft of the user's manual for the Hotspots Analysis and Reporting Program (HARP). It has been released in conjunction with version Beta 9.1 of the HARP program. Version 9.1 is considered to be a nearly final beta version, with still a few bugs and technical issues to be worked out. None of the known bugs are expected to interfere with the primary functionality of the program or cause any serious difficulties. If you do encounter problems of a serious nature we would appreciate hearing about it.

Some features discussed in the manual may be disabled in the version of the program which you receive. In particular, the prioritization calculations have been disabled pending further review by ARB, and you are not allowed to edit the chemical potencies and toxicities.

Some of the data tables that are supposed to be already populated are not finalized in this version. Some of these are noted in the documentation. The POLLUTANT table which is delivered with this version does not contain finalized values of the chemical potencies and toxicities, which is one of the primary reasons the prioritization module is disabled. Updates to the database tables and the program should be forthcoming in the near future.

Technical Support

For technical support or other information related to this program please contact the California Air Resources Board or the author at the addresses shown on the cover page. Jeff Dillingham can also be reached by e-mail at jeffdill@aol.com.

Contents

Appendix A – CEIDARS LITE Data Tables

Appendix B – Sample Reports

1 Introduction

CEIDARS (California Emissions Inventory Data Analysis and Reporting System) is a database management system developed by CARB to track state-wide pollutant emissions. The current implementation, known as CEIDARS II, combines both toxic and criteria pollutants into a single database and is a major upgrade to the previous CEIDARS system. CEIDARS LITE is a PC-compatible database that is nearly identical in structure to the CEIDARS II. It is utilized by HARP to facilitate transmission of data from districts to the CARB CEIDARS II system as well as consistency in gathering and reporting of emissions data by the districts. HARP provides functions for entering and editing facility emissions data, generating reports, and exporting or importing data in a transaction file format that is compatible with CEIDARS II.

CEIDARS LITE is one component of the Hotspots Analysis and Reporting Program (HARP) currently under development for CARB. When completed, HARP will provide functions for dispersion analysis and health risk assessment, which are fully integrated with the database. This will allow users to carry out a complete health risk assessment following the CARB guidelines for any facility in the database with minimal reentry of data.

2   Installing and Running the Program

HARP requires either Windows 95 or Window NT operating system. There is no specific memory requirement, however it is recommended that you have a computer with at lease 16 MB of RAM, and preferably 32 MB or more.

To install HARP you must run the program SETUP.EXE that is located on the first installation disk. If you have downloaded the setup program from the ARB Web site then you should already have SETUP.EXE on your hard disk in your download directory. You may run SETUP.EXE in one of two ways:

1. Locate the SETUP.EXE file using the Windows Explorer and double-click on it.
2. From the Windows Start Menu select Run and type A:\SETUP.EXE, substituting the drive and path where the setup files are located.

Follow the on-screen instructions to complete the setup. You will be prompted for the directory where you want to install the program. You may accept the default directory (typically C:\HARP) or enter a different directory of your choice.   You will also be given an opportunity to create a backup directory that will contain copies of any files that have been replaced by the setup program. It is recommended that you do this, especially when installing future upgrades.

The setup program will install a copy of the User's Manual in the same directory as the program and data files. You may read or print the user's manual by opening either MANUAL.DOC (for Microsoft Word) or MANUAL.WPF (for WordPerfect).

The setup program will place an icon on your desktop shaped like a harp. To run the program you may double click on the icon. Alternatively, you can run the program by double-clicking on the file HARP.EXE from within the Windows Explorer.

3 Functional Overview/Main Menu

When you run HARP the following window will appear. This window provides the main menu from which you access all of the program functions. This section provides an overview of each of these menu options and tells you where to go in this manual for further details.
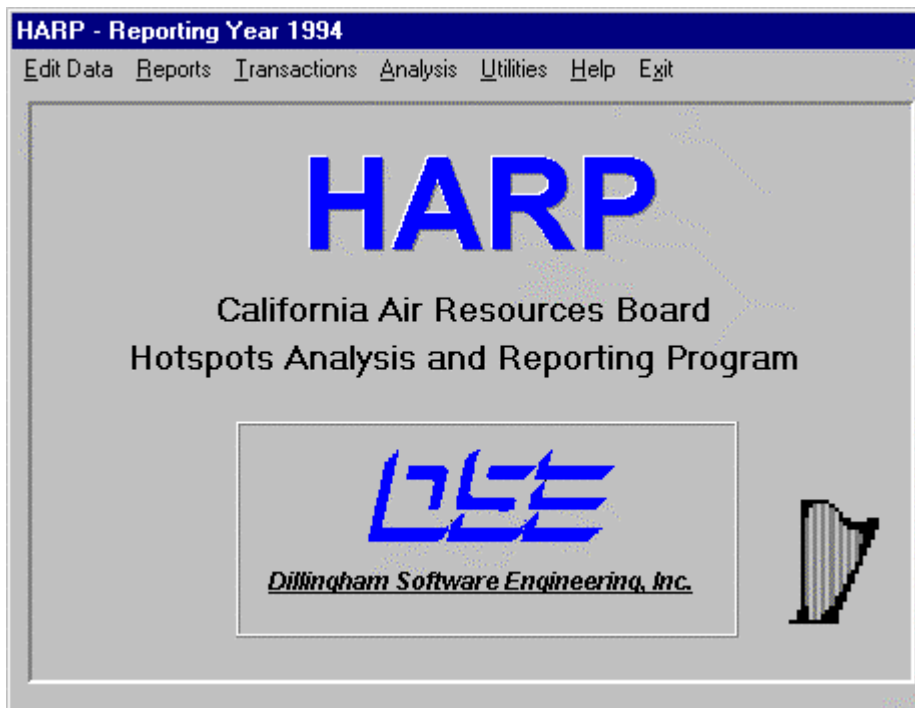
Edit Data

This menu option is provides access to the various data editing screens. For the purposes of editing CEIDARS data you should select either the Facilities and Emissions *submenu for facility emission data or the* Area Source *submenu item for district-wide area source emissions. All emissions data is accessed by first specifying required facility data or by selecting an existing facility from the database. For further information on editing facility emissions see section 6.1   Point and Area Sources*

The database is designed to accommodate both point and are sources within the same table structure. Area sources are always considered to be district-wide sources, such as automobiles, which are not associated with a specific facility. The CEIDARS table structure has no provision for handling area sources specific to a facility.

When you select *Edit Data/Facilities and Emissions* you are always editing point source data associated with a single facility. If you want to edit area source data you must select *Edit Data/Area Sources* from the main menu. When you do this, the program will take you directly to the process data window. Internally, all process and emissions records for area sources are associated with a specific COABDIS (County, Air Basin, District), a fictitious facility, whose ID is 0, and a fictitious device, whose ID is also 0.

For point sources the process ID must be an integer number from 1 to 99. For area sources the process ID must be an EIC code from the EIC table. To assist you in entering a valid EIC code for an area source,

the dialog box which appears when you add a new area source process record has a button for selecting EIC codes from the database (refer to section

6.4.1.2 Adding an Area Source Process.

6.2   Facility Data.

Other data entry forms which are accessible through submenu options provide for input of building data, property boundary data, sensitive receptors, chemical potencies and toxicities, and receptor proximities. These data are used in the risk assessment modules of HARP.

Reports

This menu option provides access to several different reports which are generated from data which exists in the database. Each report can be viewed on the screen or sent to a printer. For further details on each of the reporting functions refer to section 6.11   Sensitive Receptors

Sensitive receptor data is edited in the sensitive receptor editing window, which is accessed by selecting *Edit Data/Sensitive Receptors* from the main menu. For each sensitive receptor, you are required to provide the location (UTM coordinates) and the residential and working populations. Sensitive receptor data is used in the prioritization calculations and the risk assessment modules.

When you add a new receptor by selecting the *Add* menu option, you will be prompted for a COABDIS (County, Air Basin, District) and a new receptor ID. IDs must be unique within each COABDIS.

The receptor category parameter is reserved for future use, but must be provided.

Edit Sensitive Receptors

Add Save Delete Next Previous First Last List Exit

Receptor 1 (test 1)

Location

	Name	ID
Receptor	test 1	1
County	TEST COUNTY	1
Air Basin	TEST DISTRICT ONE	a
District	TEST AIR BASIN	a
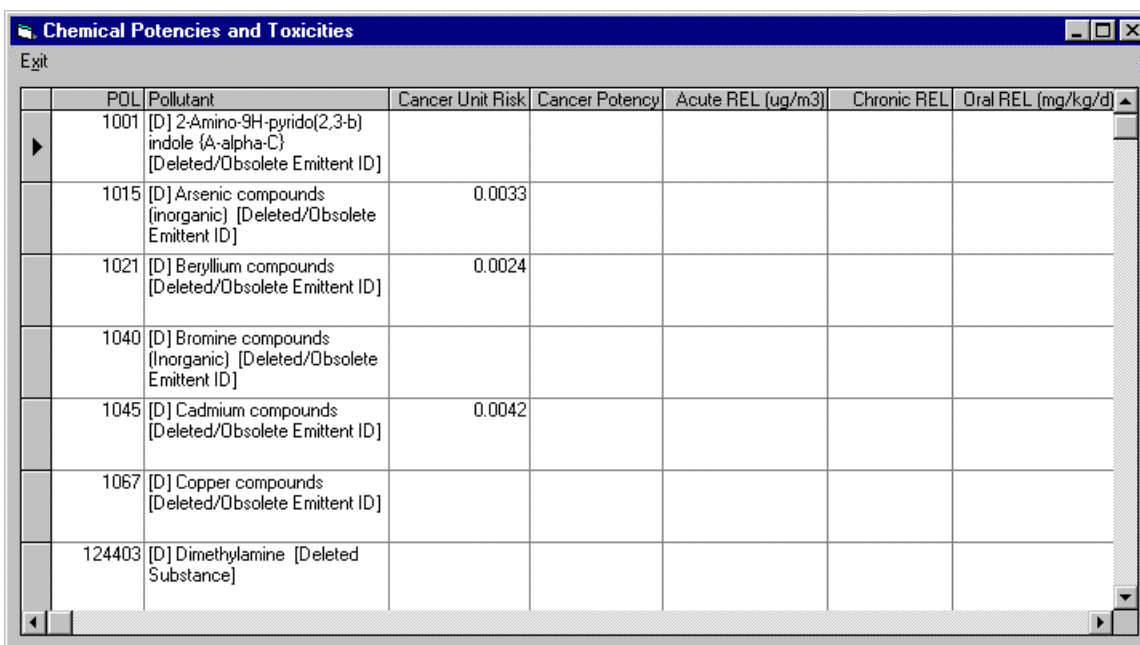
Receptor Properties

Category	SCH
UTM Zone	10
UTM North	1010
UTM East	1020
Population (res.)	100
Population (wrk.)	200

6.12 *Chemical Potencies and Toxicities*

Chemical potencies and toxicities can be edited by *selecting Edit Data/Chemical Potencies and Toxicities* from the main menu. Depending on what version of HARP you are running, this feature may be disabled. The Chemical Potencies and Toxicities window appears as shown below. The potencies and toxicities may be edited by moving the cursor to the desired row (pollutant) and column (risk factor) and enter new values. Edited values are save immediately when you move the cursor to a new row. A value may be edited without completely retyping it by pressing F2.

	POL	Pollutant	Cancer Unit Risk	Cancer Potency	Acute REL (ug/m3)	Chronic REL	Oral REL (mg/kg/d)
▶	1001	[D] 2-Amino-9H-pyrido(2,3-b) indole (A-alpha-C) [Deleted/Obsolete Emittent ID]					
	1015	[D] Arsenic compounds (inorganic) [Deleted/Obsolete Emittent ID]	0.0033				
	1021	[D] Beryllium compounds [Deleted/Obsolete Emittent ID]	0.0024				
	1040	[D] Bromine compounds (Inorganic) [Deleted/Obsolete Emittent ID]					
	1045	[D] Cadmium compounds [Deleted/Obsolete Emittent ID]	0.0042				
	1067	[D] Copper compounds [Deleted/Obsolete Emittent ID]					
	124403	[D] Dimethylamine [Deleted Substance]					

7   Reports.

Transactions

This menu option provides access to the transaction import and export functions. The transaction export function allows export data from the database to a file in a format which can be read by the CEIDARS II system at CARB. The intent is that you will then transmit this file to CARB either on a diskette or through e-mail. The transaction import function allows you to import data from a transaction file which has been prepared by CARB or anyone else running HARP. The intent is that districts who do not have historical data in a convenient format may request the data from CARB and import it directly into the CEIDARS LITE database. For further details on transaction export and import refer to section 8
Transaction.

Analysis

This menu option is reserved for future use in the risk assessment portion of HARP. It will provide access to the dispersion analysis and health risk assessment functions.

Utilities

At this time there is a single utility function accessible through this menu option. The Multi-year submenu option provides functions for selecting or changing the reporting year and copying data from one year to another. For further details on using the Multi-year options refer to section 9.1 Multi-year.

Exit

Select this menu option to exit the program.

4   The CEIDARS LITE Database

4.1   Data Organization

In order to better understand the organization of the program, it helps to understand the hierarchical organization of the underlying database. This is illustrated in the diagram below.

Most data is associated with facilities. Therefore the most common starting point for entering data is to select *Edit Data/Facilities and Emissions* from the main menu. Submenus provide access to data related to devices, processes and emissions. In order to enforce the hierarchical structure of the database, you must specify a facility before editing device data, and you must specify a device before editing process data, and so on. Everything from the facility editing window on down to emissions is essentially a replication of the CEIDARS II database.

Data which is not represented in the CEIDARS II database, but which is nevertheless required for risk assessment is accesses through submenus of the *Edit Data* menu option. These include sensitive receptors, building geometries and property boundaries. The building geometry data is necessary for the downwash calculations related to dispersion analysis, and the property boundaries data is necessary for prioritization and risk assessment.

Database Organization
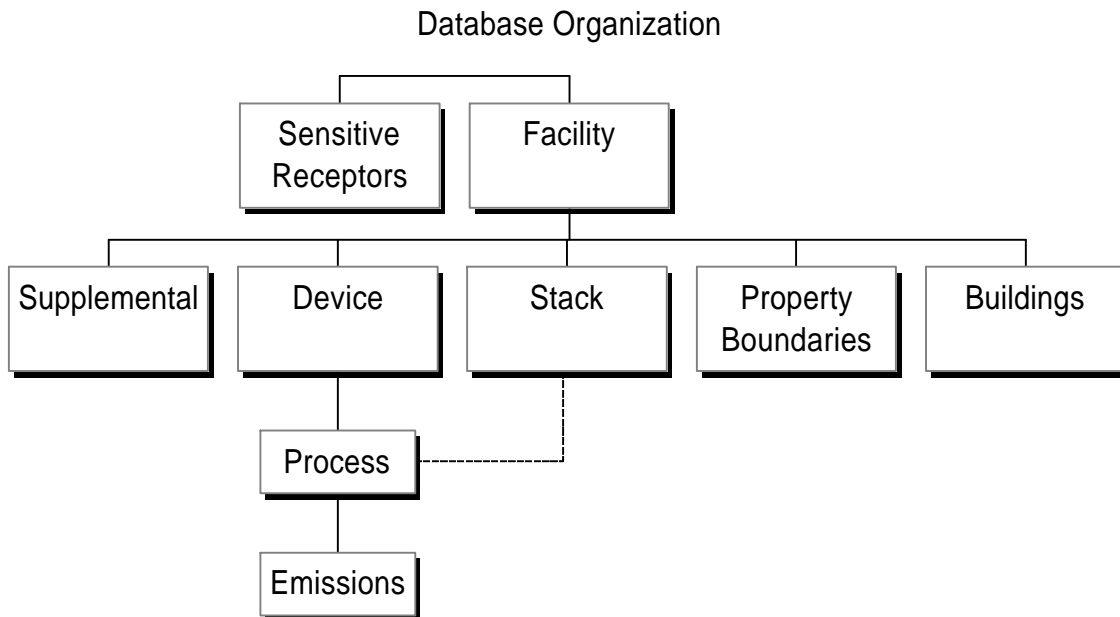
4.2 Basic Concepts

4.2.1 Tables, Records and Fields

(to be provided)

4.2.2 Key Fields

(to be provided)

5 Data Editing Guidelines

5.1 Shortcut Keys

HARP was designed so that most functions can be invoked without using the mouse. Any menu item or button whose name contains an underlined letter can be activated by holding down the Alt key and pressing the letter. Certain menu items, such as the Delete function, do not have shortcut keys, so that they will not be inadvertently activated by mistyping.

When editing data the tab key can be used to move to the next field on the window. The Shift-Tab key combination can be used to move to the previous field.

5.2 List Selection

There are numerous places in the program where you may select an item from a list rather than entering text from the keyboard. For example, each of the data editing windows has a *List* option in the menu that allows you to select from a list of available records. Also, the data editing windows all contain buttons displayed next to certain data entry fields. Most of these buttons cause the program to display a list of possible values for that data field. This section describes how to use the list selection window.

You can select from the displayed list in one of two ways:

1) double click on the record you wish to view
2) use the up and down arrow keys to move the highlight to the record you wish to view, then press the Enter key

If the list is large you may want to narrow it down by applying a search filter. A search filter is a string that the program uses to search for records to be displayed. Only records that contain the search string within certain key fields are displayed. To apply a filter move the cursor to the field next to the button labeled "Search String". Enter the string which you wish to search for, then press the button. To cancel the search and once again display all fields delete the search string and press the button again.

The steps described above can be done without using the mouse. Simply use the Tab key to move the cursor back and forth between the scrolling list of records and the search string field. Use the Alt-S key combination to activate the search and the left and right arrow keys, backspace key and delete key to edit the search string.

To cancel the list selection, either press the *Cancel* button with the mouse or press the ESC key.

5.3 List Editor

The List Editor allows you build a list of records from the database that you can save to a file and recall later. Lists are used for various analysis and reporting functions. For example, you might want to generate a report that contains emission data only from a certain list of chemicals that you specify. The list editor allows you to specify the list of chemicals and save the list to a file. If you want to generate the same report at a later time you need only recall the list. Two types of editable lists are used by the program: pollutant lists and facility lists. These are described in the following two sections.

The remainder of this section describes how to use the List Editor.

5.3.1 Editing a Pollutant List

The example window shown below displays a list of chemicals taken from the pollutant table. This list can be activated from several of the report windows to allow you to specify which pollutants you want reported

The name of the file containing the list is shown at the top of the window. The next item below that is the type of list, which is determined by the program. The user can change the **List Label** field, which is a simply a text description of the list.

The scrolling window just below the **Available Records** label contains all of the chemicals in the database. The scrolling window at the bottom of the window shows the chemicals contained in the list that you are editing. The buttons on the right of the window provide various functions for adding or deleting items from the list being edited, as described below.

To add a record to the list, first click on the bottom list to select the item place in the list where you want to insert the new item. Then select one of the items in the top top list which you want to add. Then select one of the following three buttons.

Insert After	inserts the selected record from the top list immediately after the selected record in the bottom list
Insert Before	inserts the selected record from the top list immediately before the selected record in the bottom list
Insert All	Inserts all records from the top list into the bottom list

To delete an item from the list, first click on the item that you want to delete. Then press one of the following three buttons

Delete   deletes the selected record from the list
Delete All   deletes all records from the bottom list

After making changes to the list you should select on of the following menu items:

File/Save   saves the list to the file named at the top of the window
File/Save As   saves the list to a new file which you will name

To edit an existing list, select **_Files/Open_** from the menu, then locate the list file in the file selection dialog box.

To create a new list select Files/New from the menu. This can also be done by pressing the Delete All button and then saving the list to a new file with the **_File/Save_** As menu option.

5.3.2   Editing a Facility List

The example window shown below displays a list of facilities taken from the facility table. This list can be activated from several of the report windows to allow you to specify which facilities you want reported

The name of the file containing the list is shown at the top of the window. The next item below that is the type of list, which is determined by the program. The user can change the **List Label** field, which is a simply a text description of the list.

The scrolling window just below the **Available Records** label contains all of the facilities in the database. The scrolling window at the bottom of the window shows the facilties contained in the list that you are editing. The buttons on the right of the window provide various functions for adding or deleting items from the list being edited, as described below.

To add a record to the list, first click on the bottom list to select the item place in the list where you want to insert the new item. Then select one of the items in the top list that you want to add. Then select one of the following three buttons.

Insert After   inserts the selected record from the top list immediately after the selected record in the bottom list

Insert Before   inserts the selected record from the top list immediately before the selected record in the bottom list

Insert All   Inserts all records from the top list into the bottom list

To delete an item from the list, first click on the item that you want to delete. Then press one of the following three buttons

Delete   deletes the selected record from the list

Delete All   deletes all records from the bottom list

After making changes to the list you should select on of the following menu items:

File/Save   saves the list to the file named at the top of the window

File/Save As   saves the list to a new file which you will name

To edit an existing list, select *Files/Open* from the menu, then locate the list file in the file selection dialog box.

To create a new list select Files/New from the menu. This can also be done by pressing the *Delete All* button and then saving the list to a new file with the *File/Save* As menu option.

5.4   Common Menu Items

Some menu options, which are common to all data entry screens, are described in this section. These menu options apply to facility data, device data, process data, emissions data, supplemental data, stack data, and sensitive receptor data.

5.4.1 Add

The *Add* menu option is used to add a new record to the database. The type of record added depends on which data entry form is currently displayed. When adding a new record, you will immediately be prompted to provide values for any item that is part of the unique key for that record. Where appropriate, a button will be shown which can be used to select from a list of legal entries. If the key field values which you provide are not unique, an error message will be displayed and the record will not be added. When adding a new record be selecting the *Add* menu option, all fields on the new record will be cleared.

5.4.2 Duplicate

The *Duplicate* menu option is similar to the Add menu option, except that the data fields are not cleared from the data entry window before adding the new record. This provides a way to copy all fields except the key fields from an existing record to another new record.

5.4.3 Save

The Save menu option causes any changes which you have made to the field values on a data editing window to be immediately saved to the database. You cannot cancel your changes after the record has been saved.   Before the record is saved it is validated by the program to make sure that values you provide are legal. If the validation fails the program will display a warning message telling you which field is not valid, and the record will not be saved. If you make a serious error and want to cancel your changes you can do so by selecting the *Undo* menu option or by exiting the window.

5.4.4 List

The List menu option will display a list of records from the table currently being edited. You may select from the list to display that record in the editing window. For details on using the List Selection window see section 5.2   List Selection.

5.4.5 Next

The *Next* menu item moves to the next record in the current table. If no more records are available then a warning message will be displayed and the last available record will be displayed.

5.4.6 Previous

The *Previous* menu item moves to the previous record in the current table. If the first record in the database is already displayed available then a warning message will be displayed.

5.4.7 Goto/First

This menu option will move the data entry window to the first available record in the database.

5.4.8 Goto/Last

This menu option will move the data entry window to the last available record in the database.

5.5   Help Buttons

The data editing window contain numerous buttons which you can use to get assistance in entering values in certain fields. Each button appears next to the data field to which it refers. The function of the button depends on the data field. In most cases the button calls up a list of acceptable values for that field. For details on using the list selection window refer to section 5.2   List Selection

Each of the help buttons can be activated from the keyboard by using the shortcut key corresponding to the underlined letter on the button caption.

5.6 Tab Keys

The tab key can be used to move the cursor sequentially through all of the editable fields on a data entry window. The Shift-tab key combination moves the cursor sequentially in the backwards direction. The tab key can be used in combination with the Shortcut keys (refer to section 5.1 Shortcut Keys) to perform data entry without using the mouse.

5.7 Validation

Data that you enter on one of the data editing windows is validated at the time the record is saved. Validation consists of checking each of the input data values against the allowable values or range of values. Validation occurs when one of the following events occurs:

1) You select the *Save* menu option. If the validation fails the program will display a message describing the nature of the failure, and the record will not be saved.
2) You select the *Exit* menu option after making changes. In this case the program will first prompt you to determine whether you want to save the changes. If you answer no, no validation will be performed and your changes will be lost. If you answer yes the validation of you input data will be done before the record is saved. If the validation fails the program will display a message describing the nature of the failure, the record will not be saved and the window will remain as it was. The program will not exit a data editing window until changes that you have made have been correctly validated and saved or you have selected *Exit* and responded that you do not wish to save your changes.

6 Data Editing Windows

6.1 Point and Area Sources

The database is designed to accommodate both point and are sources within the same table structure. Area sources are always considered to be district-wide sources, such as automobiles, which are not associated with a specific facility. The CEIDARS table structure has no provision for handling area sources specific to a facility.

When you select *Edit Data/Facilities and Emissions* you are always editing point source data associated with a single facility. If you want to edit area source data you must select *Edit Data/Area Sources* from the main menu. When you do this, the program will take you directly to the process data window. Internally, all process and emissions records for area sources are associated with a specific COABDIS (County, Air Basin, District), a fictitious facility, whose ID is 0, and a fictitious device, whose ID is also 0.

For point sources the process ID must be an integer number from 1 to 99. For area sources the process ID must be an EIC code from the EIC table. To assist you in entering a valid EIC code for an area source, the dialog box which appears when you add a new area source process record has a button for selecting EIC codes from the database (refer to section

6.4.1.2   Adding an Area Source Process.

6.2 Facility Data Window

The facility data window is used to edit data contained in the facility table. To edit facility data select **Edit Data/Facilities and Emissions** from the main window. If there is not facility data in the database for the currently selected reporting year the program will display a warning message and the facility window will be blank. You must add a facility to the database before you can enter any device, process, emissions, stack or supplemental data. To add a facility, refer to section 6.2.1   Adding a New Facility.

The facility data window appears as shown below. The following sections describe the menu options and data fields.

6.2.1 Adding a New Facility

To add a new facility to the database, select *Add* from the menu. The following dialog box will appear.

In order to add a facility record you must provide values for each of the fields shown in this dialog box. The Facilty ID, County, Air Basin and District are all key fields which must comprise a unique combination within the database. The Facility SIC is the SIC code associated with this facility and is also a required field, though it is not part of the key.

The Facility ID may be any integer number that uniquely identifies this facility within the selected COABDIS (County, Air Basin, District)

The button labeled *Facility SIC* can be used to select from a list of all of the allowable facility SIC codes.

The button labeled *List COABDIS* can be used to display a list of all of the allowable County, Air Basin, District code combinations.

When you have entered values for all fields in this dialog window, press *OK*. The program will then validate your entries. You can only exit this dialog window by providing valid entries for all fields or by pressing the *Cancel* button. If you press *Cancel* then no facility record will be added and you will return to the facility editing window.

6.2.2 Calculate Facility Priority

When you select *Calculate/Priority* from the Facility Data Window, the Prioritization Report window is displayed with the current facility selected as shown below. To calculate the priority for this facility select *Calculate*. The calculated priority is stored in the database for later reporting. You can view the table of facility priorities by selecting *View*.
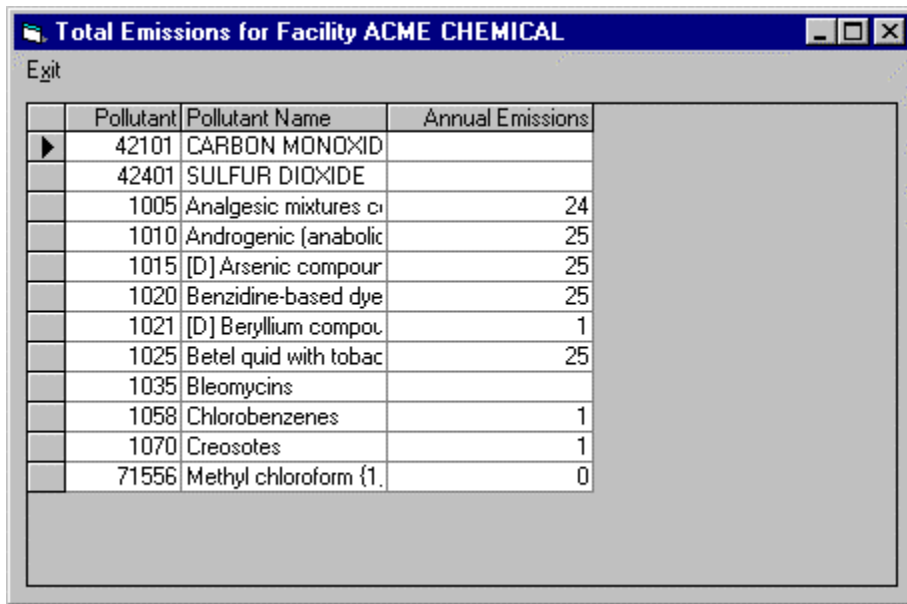
For further details on priority calculations refer to section 7.4 Prioritization.

6.2.3 Calculate Facility Total Emissions

From the facility editing window you can display a summary of total facility emissions by selecting the *Calculate/Total Emissions* menu option. The program will then display a list of all of the pollutants emitted by the facility and their annual emissions (lbs/yr), as shown in the example below. The pollutants are order alphabetically, except that the criteria pollutants always appear at the top of the list.

	Pollutant	Pollutant Name	Annual Emissions
▶	42101	CARBON MONOXID	
	42401	SULFUR DIOXIDE	
	1005	Analgesic mixtures c	24
	1010	Androgenic (anabolic	25
	1015	[D] Arsenic compour	25
	1020	Benzidine-based dye	25
	1021	[D] Beryllium compou	1
	1025	Betel quid with tobac	25
	1035	Bleomycins	
	1058	Chlorobenzenes	1
	1070	Creosotes	1
	71556	Methyl chloroform {1.	0

Total Emissions for Facility ACME CHEMICAL — Exit

6.2.4 Facility Data Field Descriptions

The following is a description of the data fields on the facility editing window

Field	Description
Facility Name	The descriptive name of a facility. The name can be any alphnumeric string up to 30 characters long.
Facility ID	An integer ID which uniquely identifies each facility within a particular COABDIS. A facility ID must be specified at the time a facility is added to the database. After that it cannot be changed.
County Name	The name of a county containing each facility. The county name is taken automatically from the COABDIS table.
County ID	An integer ID which uniquely identifies a county. A county ID must be specified when a facility is added to the database and must correspond to one of the counties in the COABDIS table.
Air Basin ID	An integer ID which uniquely identifies an air basin. An air basin ID must specified when a facility is added to the database and must correspond to one of the districts in the COABDIS table.
Air Basin Name	The name of the air basin containing a facility. An air basin ID must be specified when a facility is added to the database. The air basin name is taken automatically from the COABDIS table.
District Name	The name of a district containing each facility. The district name is taken automatically from the COABDIS table.

District ID	An integer ID which uniquely identifies a district. A district ID must specified when a facility is added to the database and must correspond to one of the districts in the COABDIS table.
Person	Name of the a phone contact person for each facility.
Address	Street address where facility is located.
City	City where facility is located.
Zip	Facility Zip code.
Area Code	Facility telephone area code.
Phone	Facility phone number.
Co. Name	Facility (company) name.
Address (Mailing)	Street mailing address of a facility. If the mailing address is the same as the facility address, it can be copied from the facility address on the facility editing window by pressing the button labeled *Copy Facility Address*.
City (Mailing)	City where facility is located for mailing purposes. If the mailing address is the same as the facility address, it can be copied from the facility address on the facility editing window by pressing the button labeled *Copy Facility Address*.
Attention	Facility contact person for mailing purposes. If the mailing address is the same as the facility address, it can be copied from the facility address on the facility editing window by pressing the button labeled *Copy Facility Address*.
Subco. ID	Facility sub-county identifier. If this is entered, it must correspond to one of the subcounty codes in the SUBCO table. You may select a value from a list by pressing the button labeled *Subco. ID*.
Rec. Proximity	Receptor proximity for the facility. This is the distance from the facility to the nearest receptor for the purpose of calculating facility priority score. You may enter a value directly into the box of the facility editing window or press the button labeled *Rec. Proximity* to have the program calculate it. Calculation of receptor proximity requires that you have already entered facility stack data and property boundary data.
District FACD1	Reserved for district use.
District FACD2	Reserved for district use.
Program Phase	Phase at which a facility was brought into the program. Must be one of the following: P1 (first phase, >=25 TPY), P2 (second phase, >= 10 TPY; P3 (third phase, <10 TPY). Press the button labeled *Program Phase* to change the value of this field.
Toxic Program Status	Toxic program status. A 1 on this field indicates that the facility is in the toxic program. If the field is blank the facility is not in the toxic program. Press the button labeled *Toxic Program Status* to change the value of this field.
Forecasting	This field is used to indicate whether a facility is used for forecasting purposes. A value of N indicates that this is an NSR facility. Press the button labeled *Forcasting* to change the value of this field.
Priority for Risk	This field indicates the priority of a facility for risk assessment. Allowable values are: H (high priority), L (low priority) or I (intermediate priority). Press the button labeled *Priority for Risk* to change the value of this field.

Industry Wide	This field indicates whether a facility is included in the industry-wide emissions data. Allowable values are: Y (included in industry-wide); N (not included in industry wide).
SO2 Designation	Area designation for S02. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled *S02 Designation* to select an allowable value from a list.
PM Designation	Area designation for particulates. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled *PM Designation* to select an allowable value from a list.
OZ Designation	Area designation for Ozone. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled *OZ Designation* to select an allowable value from a list.
NO2 Designation	Area designation for N02. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled *N02 Designation* to select an allowable value from a list.
CO Designation	Area designation for CO. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled CO *Designation* to select an allowable value from a list.
Last Update	The data when this record was last modified. For facility records, this field is updated whenever any subordinate record is updated. Subordinate records are devices, processes, emissions or stacks which belong to the facility.

6.3   Device Data Window

Before you can edit device data you must first select a facility by selecting
Edit Data/Facilities and Emissions ***from the main menu. For information
on editing facility data refer to section 6.1   Point and Area Sources***

The database is designed to accommodate both point and are sources within the same table structure. Area sources are always considered to be district-wide sources, such as automobiles, which are not associated with a specific facility. The CEIDARS table structure has no provision for handling area sources specific to a facility.

When you select *Edit Data/Facilities and Emissions* you are always editing point source data associated with a single facility. If you want to edit area source data you must select *Edit Data/Area Sources* from the main menu. When you do this, the program will take you directly to the process data window. Internally, all process and emissions records for area sources are associated with a specific COABDIS (County, Air Basin, District), a fictitious facility, whose ID is 0, and a fictitious device, whose ID is also 0.

For point sources the process ID must be an integer number from 1 to 99. For area sources the process ID must be an EIC code from the EIC table. To assist you in entering a valid EIC code for an area source, the dialog box which appears when you add a new area source process record has a button for selecting EIC codes from the database (refer to section

6.4.1.2   Adding an Area Source Process.

6.2   Facility Data Window.

The device data window is used to edit data contained in the device table. To edit device data select *Device* from the facility data window. If there is no device data in the database for the currently selected facility and reporting year the program will display a warning message and the device window will be blank. You must add a device record to a facility before you can enter any process or emissions data for that facility. To add a device, refer to section 6.3.1   Adding a New Device.

The device data window appears as shown below. The following sections describe the menu options and data fields.

6.3.1 Adding a New Device

To add a new device to the database, select *Add* from the menu of the device data window. The following dialog box will appear.

In order to add a device record you must a provide a new device ID. The device ID must be an integer number that is unique for the current facility.

When you have entered the new device ID, press *OK*. The program will then validate your entry. You can only exit this dialog window by providing a valid device ID or by pressing the *Cancel* button. If you press *Cancel* then no device record will be added and you will return to the device data window.

6.3.2 Device Data Field Descriptions

When you add a new device or edit an existing device record the names and IDs of the facility, county, air basin and district are automatically set to the same values as the facility that contains that device. The following is a description of the other data fields on the device editing window.

Device Name	The descriptive name of a device. The name can be any alphnumeric string up to 20 characters long.
Device ID	An integer ID which uniquely identifies each device within a particular facility and COABDIS. A device ID must be specified at the time a device is added to the database. After that it cannot be changed.
Permit ID	Local permit ID.
EPA AIRS Pt. ID	EPA Airs point ID
No. Devices	Number of devices represented by this record.
Section	Section location of this device. Must be an integer number from 1 to 36.
Township	Township location of this device. Must be an integer number from 1 to 50
Township Base	Township base. Must be one of the following values: N (north), S (south). Press the button labeled *Township Base* to change the value of this field.
Range	Range location of this device. Must be an integer number from 1 to 50
Range Base	Range location base for this device. Must be one of the following values: E (east), W (west)
Subcounty ID	Device sub-county identifier. If this is entered, it must correspond to one of the subcounty codes in the SUBCO table. You may select a value from a list by pressing the button labeled *Subcounty ID*.
DEVD1	Reserved for district use.

DEVD2	Reserved for district use.
Equipment Size	Numerical value of the equipment size. The units of measurement depend on the value of Equip. Size Units.
Equip. Size Units	Equipment size units code. This is an integer number which must be taken from the EQSIZEUNIT table. Press the button labeled *Equip. Size Units* to select a value from a list. (As of 6/11/97 the EQSIZEUNIT table has not been populated with data. It is recommended that this field be left blank for the time being).
Equipment Type	Equipment type code. This is an integer number which must be taken from the EQTYPE table. Press the button labeled Equip. Size Units to select a value from a list. (As of 6/11/97 the EQTYPE table has not been populated with data. It is recommended that this field be left blank for the time being).
Eq. Size Confid.	Equipment size confidential flag. Allowable values for this field are: Y (equipment size is confidential), N (equipment size is not confidential)

6.4   Process Data Window

Before you can edit process data you must first choose a facility by selecting Edit Data/Facilities and Emissions **from the main menu. You must then choose a device by selecting** Device **from the facility data window. For information on editing facility data refer to section 6.1   Point and Area Sources**

The database is designed to accommodate both point and are sources within the same table structure. Area sources are always considered to be district-wide sources, such as automobiles, which are not associated with a specific facility. The CEIDARS table structure has no provision for handling area sources specific to a facility.

When you select *Edit Data/Facilities and Emissions* you are always editing point source data associated with a single facility. If you want to edit area source data you must select *Edit Data/Area Sources* from the main menu. When you do this, the program will take you directly to the process data window. Internally, all process and emissions records for area sources are associated with a specific COABDIS (County, Air Basin, District), a fictitious facility, whose ID is 0, and a fictitious device, whose ID is also 0.

For point sources the process ID must be an integer number from 1 to 99. For area sources the process ID must be an EIC code from the EIC table. To assist you in entering a valid EIC code for an area source, the dialog box which appears when you add a new area source process record has a button for selecting EIC codes from the database (refer to section

6.4.1.2   Adding an Area Source Process.

6.2   Facility Data Window. For information on editing device data refer to section 6.3   Device Data Window.

The process data window is used to edit data contained in the process table. To edit process data select *Process* from the device data window. If there is no process data in the database for the currently selected facility, device and reporting year the program will display a warning message and the process window will be blank. You must add a process record to a facility before you can enter any emissions data for that facility. To add a process, refer to section 6.4.1   Adding a New Process

The procedures for adding a new process record are slightly different depending on whether you are editing stationary point data or area source data. If you selected Edit Data/Facilities and Emissions from the main menu, then you are editing stationary point data

6.4.1.1   Adding a Stationary Point Process

The process data window appears as shown below. The following sections describe the menu options and data fields.

6.4.1 Adding a New Process

The procedures for adding a new process record are slightly different depending on whether you are editing stationary point data or area source data. If you selected Edit Data/Facilities and Emissions from the main menu, then you are editing stationary point data

6.4.1.1 Adding a Stationary Point Process

To add a new stationary point source process to the database, select *Add* from the menu of the device data window. The following dialog box will appear.
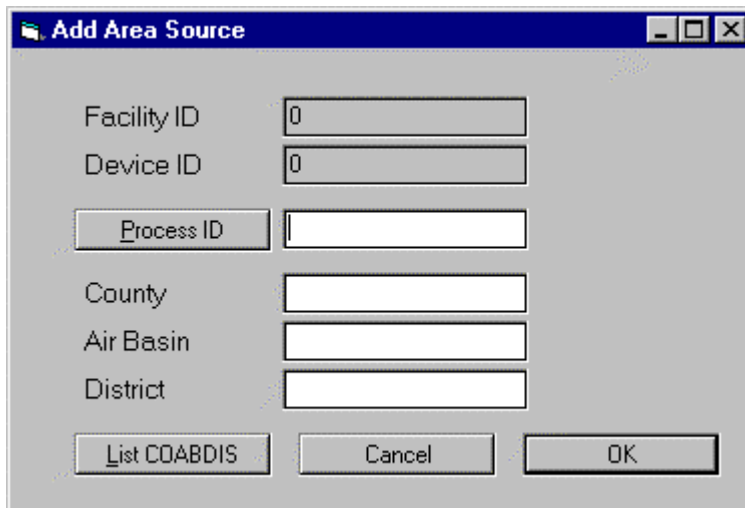
In order to add a process record you must provide a new process ID. The process ID must be an integer number that is unique for the current facility and device. When entering stationary point data, the process ID must be number from 1 to 99. If you are entering area source data the process ID must be a valid EIC code.

When you have entered the new process ID, press *OK*. The program will then validate your entry. You can only exit this dialog window by providing a valid process ID or by pressing the *Cancel* button. If you press *Cancel* then no process record will be added and you will return to the process data window.

6.4.1.2 Adding an Area Source Process

To add a new area source to the database, you must first select Edit Data/Area Sources from the main menu. Then select *Add* from the menu of the process data window. The following dialog box will appear.

For area sources, the facility ID and device ID are always zero. In order to add a process record you must provide a new process ID. The process ID must be an EIC code contained in the EIC table. If you do not know the EIC code, press the *Process ID* button to select a valid EIC code from a list.

You must also provide the COABDIS (County, Air Basin, District) codes for the new process record. If you do not know the COABDIS, you can press the *List COABDIS* button to select valid codes from a list.

When you have entered the new process ID and COABDIS, press *OK*. The program will then validate your entries. You can only exit this dialog window by providing a valid input or by pressing the *Cancel* button. If you press *Cancel* then no process record will be added and you will return to the process data window.

For an explanation of how point source and area sources are handled by the program, refer to section 6.1 Point and Area Sources

6.4.2 Process Data Field Descriptions

When you add a new process or edit an existing process record the names and IDs of the facility, county, air basin, district and device are automatically set to the same values as the device that contains that process. The following is a description of the other data fields on the process editing window.

Process Name	The descriptive name of a process. The name can be any alphnumeric string up to 40 characters long.
Process ID	An integer ID which uniquely identifies each process within a particular facility, device and COABDIS. A process ID must be specified at the time a process is added to the database. After that it cannot be changed.
Confidential	Process confidential flag. Allowable values for this field are: Y (process data is confidential), N (process data is not confidential)
Forecast	Process specific forecast indicator. Allowable values are:
Stack	The ID of the stack to which this process is physically connected. The ID must correspond to one of the stacks already defined for the facility. Press the button

	labeled *Stack* to select from a list of valid stacks.
SCC Units	For processes, the SCC units are automatically set to be the same as the SCC units of the device containing this process.
Process Rate	Process rate in SCC units
Max Design Rate	Maximum process design rate.
Date Process Rate Last Changed	Date on which the process rate field in the database was last changed. This is automatically updated by the program.
Changed by Agency/Person	The person who last changed the process rate in the database. This is automatically updated by the program using the initials that you enter when you log onto the system.
Unreconciled Process Rate	Unreconciled area process rate. This only applies to area sources.
Max. Hourly Process Rate	Maximum hourly process rate.
SIC/EIC	This is either the process SIC code (for stationary point sources) or the EIC code (for area sources). Press the button labeled SIC/EIC to select from a list of valid codes.
SCC/EIC	This is either the process SCC code (for stationary point sources) or the EIC code (for area sources). Press the button labeled SCC/EIC to select from a list of valid codes.
REIC	This is the reconciled EIC code. It is displayed by the program for your information.
Process Rate Origin Code	Process rate origin code. This is an integer number which must be taken from the DEFPRORIG table. (As of 6/11/97 this table has not been populated, so it is recommended that this field be left blank)
Process Rate Reliability	Process rate reliability. This must be an integer number of no more than 3 digits.
Sulfur Content	Fuel sulfur content expressed as a percentage. Must be between 0.0 and 3.0.
Spatial Distribution Parameter	Numerical spatial distribution parameter. This applies only to area sources.
PROD1	Reserved for district use.
PROD2	Reserved for district use.
Operating Hrs/Day	Code used to specify number of operating hours per day. Press the button labeled *Operating Hrs/Day* to select from a list of valid codes.
Operating Days/Wk	Code used to specify number of operating days per week. Press the button labeled *Operating Days/Wk* to select from a list of valid codes.
Operating weeks per year	Number of operating weeks per year.
Agency Making Area Estimate	Name of the agency making the area estimate. This applies to area sources only. It is an alphanumeric string of up to 6 characters.

Year of Emission
Estimate

Year in which the process/emission estimate was made. Must be between 1980 and the current year.

6.5 Emissions Data Window

Before you can edit emissions data for a point source you must first choose a facility by selecting *Edit Data/Facilities and Emissions* from the main menu. You must then choose a device by selecting *Device* from the facility data window, and a process by selecting *Process* from the device data window. If you are entering data for area sources, you can get to the process window by selecting *Edit Data/Area Sources* from the main menu.

For information on editing facility data refer to section 6.1   Point and Area Sources

The database is designed to accommodate both point and are sources within the same table structure. Area sources are always considered to be district-wide sources, such as automobiles, which are not associated with a specific facility. The CEIDARS table structure has no provision for handling area sources specific to a facility.

When you select *Edit Data/Facilities and Emissions* you are always editing point source data associated with a single facility. If you want to edit area source data you must select *Edit Data/Area Sources* from the main menu. When you do this, the program will take you directly to the process data window. Internally, all process and emissions records for area sources are associated with a specific COABDIS (County, Air Basin, District), a fictitious facility, whose ID is 0, and a fictitious device, whose ID is also 0.

For point sources the process ID must be an integer number from 1 to 99. For area sources the process ID must be an EIC code from the EIC table. To assist you in entering a valid EIC code for an area source, the dialog box which appears when you add a new area source process record has a button for selecting EIC codes from the database (refer to section

6.4.1.2   Adding an Area Source Process.

6.2   Facility Data Window. For information on editing device data refer to section 6.3   Device Data Window. For information on editing process data refer to section 6.4   Process Data Window.

The emissions data window is used to edit data contained in the emission table. To edit emission data select *Emissions* from the process data window. If there is no emissions data in the database for the currently selected facility, device, process and reporting year the program will display a warning message and the emissions window will be blank. To add an emissions record, refer to section 6.5.1   Adding an New Emission Record

The emissions data window appears as shown below. The following sections describe the menu options and data fields.

6.5.1 Adding an New Emission Record

To add a new emissions record to the database, select *Add* from the menu of the emissions data window. The following dialog box will appear.

In order to add an emissions record you must provide a new pollutant ID. Pollutant IDs are the same as the CAS numbers. The pollutant ID must be a valid id that exists in the pollutant table. If you do not know the pollutant ID, press the **Pollutant ID** button to select one from a list.

When you have entered the new pollutant ID, press **OK**. The program will then validate your entry. You can only exit this dialog window by providing a valid pollutant ID or by pressing the **Cancel** button. If you press **Cancel** then no emissions record will be added and you will return to the emissions data window.

6.5.2 Emissions Data Field Descriptions

When you add a new emission record or edit an existing emission record the names and IDs of the facility, county, air basin, district,device and process are automatically set to the same values as the process that contains that emission. The following is a description of the other data fields on the emissions editing window.

Pollutant Name	The name of the pollutant being emitted. This is filled in automatically by the program so that it corresponds to the pollutant ID on the emission editing window.
Pollutant ID	An ID which uniquely identifies each emitted pollutant within a particular facility, device, process and COABDIS. A pollutant ID must be specified at the time a emission record is added to the database. After that it cannot be changed. The pollutant ID must correspond to one of the pollutants in the POLLUTANT table.
Dis. Frac ROG/PM10	District specified ROG or PM10 or NOX fraction. Must be a number between 0.0 and 1.0.
Fraction ROG/PM10	ARB default fraction for ROG or PM10 or NOX. This is filled in automatically by the program.
Dis. Frac. VOC/PM 2.5	District specified fraction of VOC or PM2.5. Must be a number between 0.0 and 1.0.
Fraction VOC/PM 2.5	ARB default fraction of VOC or PM2.5. Must be a number between 0.0 and 1.0.

Primary Control	Primary pollutant control device code. This must be a number taken formt the CNTLDEV table. Press the button labeled Primary Control to select from a list of valid codes. (As of 6/11/97 this table has not been populated, so it is recommended that this field be left blank)
Secondary Control	Secondary pollutant control device code. This must be a number taken formt the CNTLDEV table. Press the button labeled Primary Control to select from a list of valid codes. (As of 6/11/97 this table has not been populated, so it is recommended that this field be left blank)
Efficiency	Control efficiency as a percentage. Must be a number between 0.0 and 100.0.
Forecasted	Pollutant specific forecast indicator. This may be left blank for set to R to indicate that this is a reclaim pollutant. Press the button labeled *Forecast* to change the value of this field.
UnRec. EMS (area)	Unreconciled area emissions. Applies to area sources only.
Annual EMS	Annual emissions. Units are tons/yr for criteria pollutants, lbs/yr for toxics, and curies/yrfor radionuclides
Calculated Annual EMS	The annual emissions are calculated by the program and displayed for you reference and validation. They are calculated from the process rate and the emission factor.
Hr. Max. EMS	Hourly maximum emissions. Units are lbs/hr, except for radionuclides which are in milicuries/hr.
Calculated Hourly EMS	The hourly maximum emissions are calculated by the program and displayed for you reference and validation. They are calculated from the maximum houlry process rate and the emission factor.
Excess EMS	Total excess emissions. Units are tons/yr for criteria pollutants, lbs/yr for toxics, and curies/yrfor radionuclides
Potential	Potential emissions for districts' use. Units are tons/yr for criteria pollutants, lbs/yr for toxics, and curies/yrfor radionuclides
EMS Calc. Method	Emission calculation method code. This is an integer number which must correspond to one of the values in the DEFMETH table. (As of 6/11/97 this table has not been populated, so it is recommended that this field be left blank)
Last EMS Update	Date on which the annual emission rate was last updated in the database.
Person Changing	The person who last changed the annual emission rate in the database. This is automatically updated by the program using the initials that you enter when you log onto the system.

6.6   Stack Data Window

Before you can edit stack data you must first choose a facility by selecting Edit Data/Facilities and Emissions ***from the main menu. For information on editing facility data refer to section 6.1   Point and Area Sources***

The database is designed to accommodate both point and are sources within the same table structure. Area sources are always considered to be district-wide sources, such as automobiles, which are not associated with a specific facility. The CEIDARS table structure has no provision for handling area sources specific to a facility.

When you select ***Edit Data/Facilities and Emissions*** you are always editing point source data associated with a single facility. If you want to edit area source data you must select ***Edit Data/Area Sources*** from the main menu. When you do this, the program will take you directly to the process data window. Internally, all process and emissions records for area sources are associated with a specific COABDIS (County, Air Basin, District), a fictitious facility, whose ID is 0, and a fictitious device, whose ID is also 0.

For point sources the process ID must be an integer number from 1 to 99. For area sources the process ID must be an EIC code from the EIC table. To assist you in entering a valid EIC code for an area source, the dialog box which appears when you add a new area source process record has a button for selecting EIC codes from the database (refer to section

6.4.1.2   Adding an Area Source Process.

6.2   Facility Data Window

The stack data window is used to edit data contained in the stack table. To edit stack data select *Stack* from the facility data window. If there is no stack data in the database for the currently selected facility the program will display a warning message and the stack window will be blank.

The stack data window appears as shown below. The following sections describe the menu options and data fields.
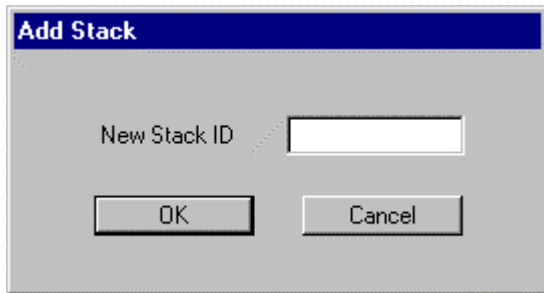
6.6.1 Adding a New Stack Record

To add a new stack to the database, select *Add* from the menu of the stack data window. The following dialog box will appear.

In order to add a stack record you must a provide a new stack ID. The stack ID must be an integer number that is unique for the current facility.

When you have entered the new device ID, press *OK*. The program will then validate your entry. You can only exit this dialog window by providing a valid stack ID or by pressing the *Cancel* button. If you press *Cancel* then no stack record will be added and you will return to the device data window.

6.6.2 Stack Data Field Descriptions

When you add a new stack or edit an existing stack record the names and IDs of the facility, county, air basin and district are automatically set to the same values as the facility that contains that stack. The following is a description of the other data fields on the stack editing window.

Stack Name	The descriptive name of a stack. This may be any string up to 30 characters.
AIRS STK	EPA AIRS stack number
Height	Stack height in feet.
Diam	Stack diameter at exit in feet.
UTM East	Stack UTM East coordinate in km.
UTM North	Stack UTM North coordinate in km
Temperature	Actual gas temperature as exit in degrees F. Must be a number between 50 and 2500.
Rate	Actual gas flow rate in CFM
Velocity	Actual gas velocity at exit in ft/min.
Elevation	Elevation of the base of the stack in feet.
Last Update	Date on which the stack record was last updated in the database.
Calculate Rate (button)	When you press this button the program calculates and displays the gas flow rate from the velocity and stack diameter.
Calculate Velocity (button)	When you press this button the program calculates and displays the gas exit velocity from the flow rate and stack diameter.

6.7   Supplemental Process Data Window

The supplemental process data window is used to enter supplemental process parameters to describe substances used, produced or otherwise present. This applies to substances which are emitted in quantities below the applicable degree of accuracy for the facility or other substances which are required to be reported by the Emissions Inventory Criteria and Guidelines Regulation.

Before you can edit supplemental process data you must first choose a facility by selecting Edit Data/Facilities and Emissions from the main menu. For information on editing facility data refer to section 6.1 Point and Area Sources

The database is designed to accommodate both point and are sources within the same table structure. Area sources are always considered to be district-wide sources, such as automobiles, which are not associated with a specific facility. The CEIDARS table structure has no provision for handling area sources specific to a facility.

When you select **Edit Data/Facilities and Emissions** you are always editing point source data associated with a single facility. If you want to edit area source data you must select **Edit Data/Area Sources** from the main menu. When you do this, the program will take you directly to the process data window. Internally, all process and emissions records for area sources are associated with a specific COABDIS (County, Air Basin, District), a fictitious facility, whose ID is 0, and a fictitious device, whose ID is also 0.

For point sources the process ID must be an integer number from 1 to 99. For area sources the process ID must be an EIC code from the EIC table. To assist you in entering a valid EIC code for an area source, the dialog box which appears when you add a new area source process record has a button for selecting EIC codes from the database (refer to section

6.4.1.2   Adding an Area Source Process.

6.2   Facility Data Window

The supplemental data window is used to edit data contained in the S_UP table. To edit supplemental data select *Supplemental* from the facility data window. If there is no supplemental data in the database for the currently selected facility the program will display a warning message and the supplemental data window will be blank.

The supplemental data window appears as shown below. The following sections describe the menu options and data fields.

6.7.1 Adding a Supplemental Record

To add a new supplemental record to the database, select *Add* from the menu of the supplemental data window. The following dialog box will appear.

In order to add a supplemental record you must a provide a new pollutant ID. Pollutant IDs are the same as the CAS numbers. The pollutant ID must be a valid id that exists in the pollutant table. If you do not know the pollutant ID, press the *Pollutant ID* button to select one from a list.

When you have entered the new pollutant ID, press *OK*. The program will then validate your entry. You can only exit this dialog window by providing a valid pollutant ID or by pressing the *Cancel* button. If you press *Cancel* then no device record will be added and you will return to the device data window.

6.7.2 Supplemental Data Field Descriptions

When you add a new supplemental record or edit an existing supplemental record the names and IDs of the facility, county, air basin and district are automatically set to the same values as the facility to which this record refers. The following is a description of the other data fields on the supplemental editing window.

Pollutant Name	The name of the pollutant being emitted. This is filled in automatically by the program so that it corresponds to the pollutant ID on the supplemental process data editing window.
Pollutant ID	An ID which uniquely identifies each emitted pollutant within a particular facility, device, supplement and COABDIS. A pollutant ID must be specified at the time a supplement record is added to the database. After that it cannot be changed. The pollutant ID must correspond to one of the pollutants in the POLLUTANT table.
Abbrev. Name	The name of the pollutant being emitted. This is filled in automatically by the program so that it corresponds to the pollutant ID on the supplemental process data editing window.
Used	A flag indicating whether this substance is used. Allowable values for this field are: Y (this substance is used), N (this substance is not used). Press the button labeled *Used* to change the value of this field.
Produced	A flag indicating whether this substance is produced. Allowable values for this field are: Y (this substance is produced), N (this substance is not produced). Press the button labeled *Produced* to change the value of this field.
Present	A flag indicating whether this substance is present. Allowable values for this field are: Y (this substance is present), N (this substance is not present). Press the button labeled *Present* to change the value of this field.
How Present	A description of how the chemical is present at this facility. This can be any string up to 39 characters.

6.8   Area Sources

Area source data is edited by selecting *Edit Data/Area Sources* from the main menu. When you do this, the program will take you directly to the process data window.

Internally, all process and emissions records for area sources are associated with a specific COABDIS (County, Air Basin, District), a fictitious facility, whose ID is 0, and a fictitious device, whose ID is also 0. The process ID for an area source must always be a valid EIC code from the EIC table. In all other respects, editing of area sources is the same as editing stationary point sources.

For an explanation of how point and area sources are handled by the program, refer to section 6.1 Point and Area Sources.

6.9 Building Geometry Data Window

(to be provided)

6.10 Property Boundary Data Window

(to be provided)

Property Boundary Points   _ □ ✕

Save   Add   Delete   Sort   Redraw   Exit

Property Boundary 1

Plot Order	East Location (m)	North Location (m)	Elevation (ft)
1	-200	-100	1
2	-100	100	2
3	100	100	3
4	100	0	2
5	0	-200	1

6.11 Sensitive Receptors

Sensitive receptor data is edited in the sensitive receptor editing window, which is accessed by selecting *Edit Data/Sensitive Receptors* from the main menu. For each sensitive receptor, you are required to provide the location (UTM coordinates) and the residential and working populations. Sensitive receptor data is used in the prioritization calculations and the risk assessment modules.

When you add a new receptor by selecting the *Add* menu option, you will be prompted for a COABDIS (County, Air Basin, District) and a new receptor ID. IDs must be unique within each COABDIS.

The receptor category parameter is reserved for future use, but must be provided.

6.12 Chemical Potencies and Toxicities

Chemical potencies and toxicities can be edited by *selecting Edit Data/Chemical Potencies and Toxicities* from the main menu. Depending on what version of HARP you are running, this feature may be disabled. The Chemical Potencies and Toxicities window appears as shown below. The potencies and toxicities may be edited by moving the cursor to the desired row (pollutant) and column (risk factor) and enter new values. Edited values are save immediately when you move the cursor to a new row. A value may be edited without completely retyping it by pressing F2.

POL	Pollutant	Cancer Unit Risk	Cancer Potency	Acute REL (ug/m3)	Chronic REL	Oral REL (mg/kg/d)
1001	[D] 2-Amino-9H-pyrido(2,3-b) indole {A-alpha-C} [Deleted/Obsolete Emittent ID]					
1015	[D] Arsenic compounds (inorganic) [Deleted/Obsolete Emittent ID]	0.0033				
1021	[D] Beryllium compounds [Deleted/Obsolete Emittent ID]	0.0024				
1040	[D] Bromine compounds (Inorganic) [Deleted/Obsolete Emittent ID]					
1045	[D] Cadmium compounds [Deleted/Obsolete Emittent ID]	0.0042				
1067	[D] Copper compounds [Deleted/Obsolete Emittent ID]					
124403	[D] Dimethylamine [Deleted Substance]					

7 Reports

All reports are accessed by selecting *Reports* from the main menu. The following sections describe each of the types of reports.

7.1 General Query

The general query report is used to search the database in arbitrary ways, to generate reports, and to export data from any of the CEIDARS LITE tables to an ASCII file in either comma-delimited or tab delimited format.

Using the general query function requires some knowledge of Structured Query Language (SQL). If you are unfamiliar with SQL, a good place to start is the on-line help for Microsoft Access. There are also numerous reference books published on SQL for all levels of experience. The advantages of using SQL are that it is a standard language that is common to almost all databases, and it is completely general. With SQL it is possible to retrieve any data in the database with a single line query. In most cases the query expression will be fairly short.

The figure below shows the general query report window. The remainder of this section describes how to use it.
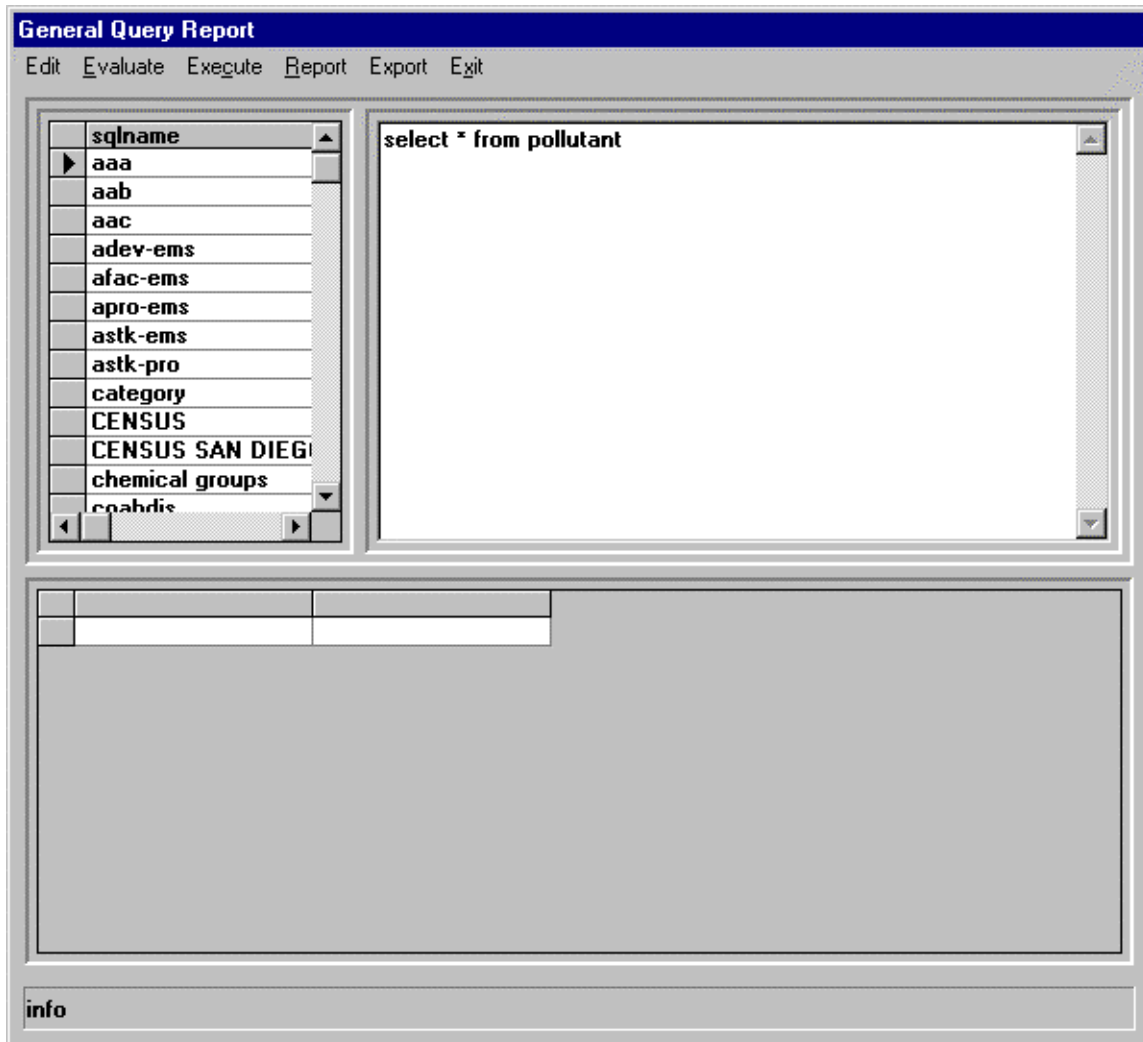
The general query window contains three sub-windows: 1) the upper left sub-window is a list of saved queries; 2) the upper right window contains the editable text of the currently selected query; 3) the lower window contains the results of evaluating a query.

You may create a query to generate a report, then save this query in the database so that you can produce the same report in the future without retyping the query. Each saved query is given a name when it is saved. The names of all saved queries are listed in the upper left sub-window. To recall a query, simply click on its name in the list. The text of the query will then appear in the edit window in the upper left corner. Any changes that you make to the query are automatically saved when you move to another query or exit the window. To display the results of a query, select the *Evaluate* menu option.

Queries must refer to fields and tables in the database. Appendix A contains a description of the most commonly used tables and fields.

The following is a list of the menu options for this window and their functions.

Edit/New	This menu option creates a new query in the database. You will be prompted for the name of the query, and the edit window will be cleared.
Edit/Save	This menu option will cause changes to the current query to be saved immediately. Changes are also saved when you move to a different query or exit the general query window.
Edit/Delete	This will cause the current query to be deleted from the database.
Evaluate	This will cause the displayed query to be evaluated, and the results to be displayed in the lower portion of the window.
Report/Build Report	This causes the current query to be evaluated, and the results to written to a tab-delimitated text file named TABBED.TXT, located in the same directory as the program. The file is then displayed in a print preview window from which it can be printed.
Report/ *View Last Report*	This causes the most recent report generated with the Report/Build Report menu option, to be displayed in a print preview window from which it can be printed.
Export/ *Export to CSV File*	This causes the displayed query to be evaluated and the results to be exported to a comma-delimited text file (CSV stands for "comma separated variables"). CSV files can be imported into most spreadsheet programs.
Export/ *Export to* *Tabbed File*	This causes the displayed query to be evaluated and the results to be exported to a tab-delimited text file. Tab-delimited files can be imported into most spreadsheet programs.

7.2   Inventory Reporting Forms

Inventory reporting forms are hard copy forms submitted by facilities to report their emissions. These may be submitted in lieu of electronic submittals. The format of the report follows the specification in the CARB the Emissions Inventory Criteria and Guidelines Regulation. HARP can generate a complete set of inventory reporting forms for a facility. These forms include will include data taken from the database for the current reporting year, or any other reporting year which you select (to learn about editing data from previous reporting years refer to section 9.1 Multi-year)

The figure show shows the Inventory Reporting Forms window. The remainder of this section describes how to use this feature.

There are four types of forms: Facility From, Stack Form, Device Form, Process Form. The process form also includes both process and emission.

Start by selecting which of these four types of forms you wish to create by selecting one or more of the check boxes on the right side of the window. Next select the facility by either entering the ID in the fields on the left side of the window or pressing the *Select Facility* button to select a facility from a list.

To create the report, select one of the following menu options.

Print/Preview	This causes the selected reports to be created and displayed in a preview window. From the preview window the report can be printed.
Print/To Printer	This causes the report to be created and send directly to the printer.
Print/Print Last Report	The causes the last report which you created to be recalled and sent directly to the printer.
Print/Preview Last Report	This causes the last report which you created to be recalled and displayed in the preview window

The preview window for the inventory reporting forms appears as shown below. The bottom line of the window shows how many pages there are in the report. The menu options may be used to display the Next, Previous, First or Last pages of the report. While this window is displayed, the report may be sent to the printer by selecting *Print/Current Page* or *Print/All Pages* from the menu. The example below shows only the first page, which is the facility reporting form.
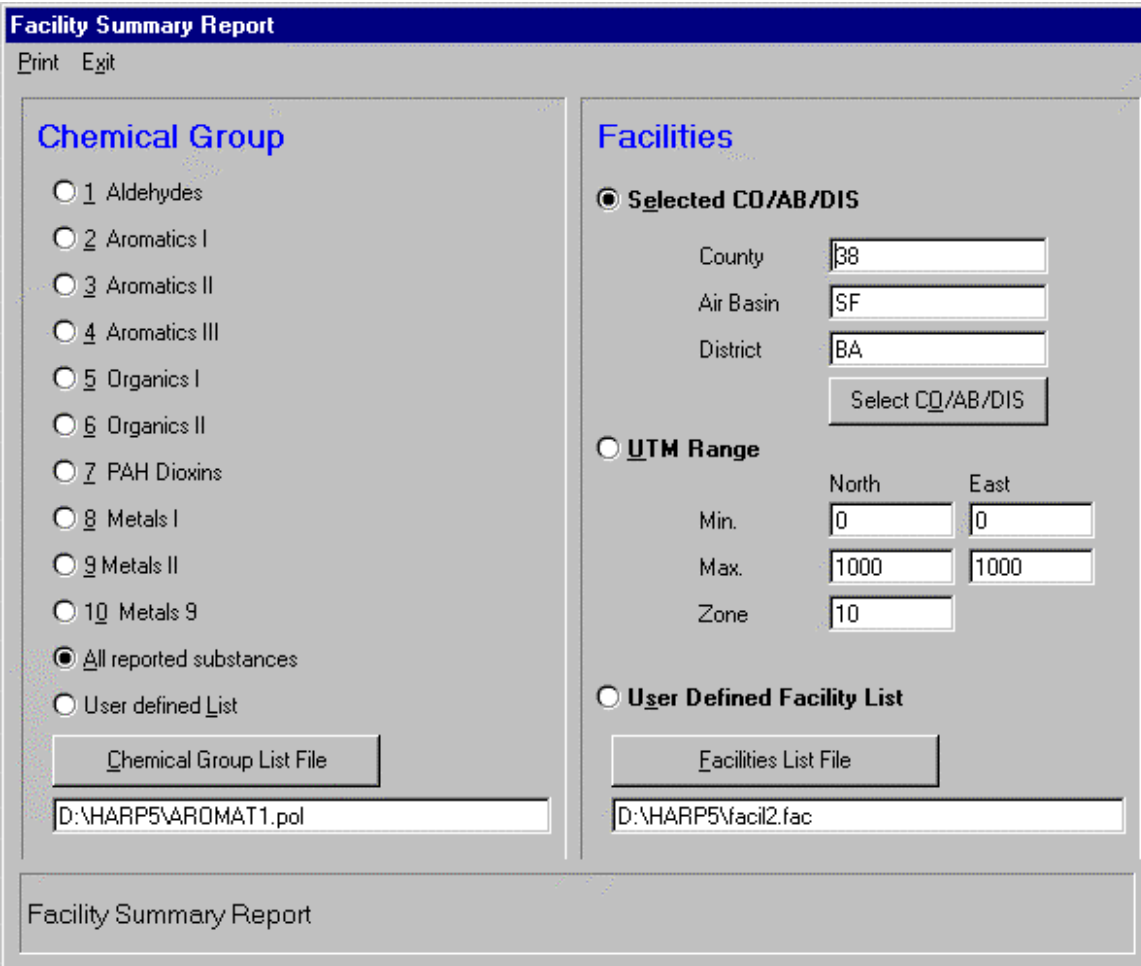
Facility Reporting Forms Preview

Print   Next   Previous   First page   Last page   Zoom   Exit

Emission Year 1 9___	AIR TOXICS EMISSION DATA SYSTEM REVIEW & UPDATE REPORT FACILITY DESCRIPTION	FORM **FAC**

FACILITY DATA

Facility Name
ACME CHEMICAL

Address
2300 BOSWELL RD., SUITE 210

City
CHULA VISTA

Zip
91914

Contact Person
JEFF DILLINGHAM

Area Code   Phone

Facility SIC   Number of Employees

County ID Action Code
1

Facility ID
1002

District   Air Basin
a   a

City ID   AQCR

Sub County ID

FACD1 (optional)

facility

Page 1 of 1

59

7.3 Emissions Summary Reports

The emissions summary reports are accessed by selecting **Report/Emission Summary** from the main menu. There are three types of emission summary reports, which are described in the following sections. Samples of all three reports are included in Appendix B.

7.3.1 Emission Summary by Facility

This report is accessed by selecting **Reports/Emission Summary/By Facility** from the main menu. The dialog window shown below will then appear.

You must pick one of several pre-defined groups of substances by selecting one of the circular radio buttons on the left. You may also select **All Reported Substances** or **User Defined List**. If you select **User Defined List**, the name of the list file must be entered into the box at the bottom left of the window. To edit the list or open a different list file, click on the button labeled **Chemical Group List File**. This will call up the list editor, which will allow you to build your own list of chemicals from the database. For details on using the list editor refer to section 5.3   List Editor.

After specifying which chemicals you want reported, you must specify which facilities to include by making a selection on the right side of the window. If you choose *Selected CO/AB/DIS*, then you must enter a valid County, Air Basin and District ID combination in the boxes on the right. You may also select a COABDIS from a list of those available by pressing the button labeled *Select CO/AB/DIS*.

If you choose UTM Range, then you must specify a range of UTM coordinates on the text boxes on the right side of the window. The program will then generate a report which includes all facilities whose location falls within those UTM coordinate boundaries. In that case, the report will not include any facilities for which UTM coordinates have not been entered on the facility editing window (for details on editing facility data refer to section 6.2   Facility Data Window).

If you select User Defined Facility List, then you must enter the name of a facility list file in the text box in the lower right corner of the window. To edit a list of facilities or open a new list press the button labeled *Facilities List File*. This will call up the list editor, which will allow you to build your own list of facilities from the database. For details on using the list editor refer to section 5.3   List Editor.

7.3.2 Emission Summary by Process

This report is accessed by selecting *Reports/Emission Summary/By Process* from the main menu. The dialog window shown below will then appear. This is the same as the window for the Emission Summary by Facility report, except that a different set of chemical group options is available. To create and print a report, follow the same procedures described in section 7.3.1 Emission Summary by Facility, Emission Summary by Facility.

Process Summary Report

Print   Exit

Chemical Group

- ○ 1 Aldehydes
- ○ 2 Aromatics I
- ○ 3 Aromatics II
- ○ 4 Aromatics III
- ○ 5 Organics I
- ○ 6 Organics II
- ○ 7 PAH Dioxins
- ○ 8 Metals I
- ○ 9 Metals II

- ● User defined List

| Chemical Group List File |

D:\HarpDev\Source\TESTPOL.pol

Facilities

- ○ Selected CO/AB/DIS

County |1
Air Basin |a
District |a

| Select CO/AB/DIS |

- ○ UTM Range

	North	East
Min.	0	0
Max.	1000	1000
Zone	10	

- ● User Defined Facility List

| Facilities List File |

D:\HarpDev\Source\facil3.fac

Process Summary Report

7.3.3 Emission Summary by Source/Control Category

This report is accessed by selecting *Reports/Emission Summary/By Source Control Category* from the main menu. The dialog window shown below will then appear. This is the same as the window for the Emission Summary by Facility report, except that a different set of chemical group options is available. To create and print a report, follow the same procedures described in section 7.3.1   Emission Summary by Facility, Emission Summary by Facility.

7.4   Prioritization

HARP performs prioritization calculations in strict accordance with the guidelines set forth by the California Air Pollution Control Officers Association in the document entitled "CAPCOA Air Toxics "Hot Spots" Program Facility Prioritization Guidelines". Prioritization scores for each facility are stored in the database each time they are revised so that a report for the entire district can be generated without recalculating for all facilities.

The prioritization report window is accessed by selecting **Reports/Prioritization** from the main menu. This will cause the following dialog window to be displayed. Follow the procedures described below to generate a facility prioritization report. A sample prioritization report is included in Appendix B.

First select one of the two circular radio button in the top part of the window to specify whether to generate a prioritization report for all facilities in a particular district, or for only a single facility. If you choose **Calculate priorities for all facilities in district**, then you must select the district by pressing the button labeled **District**. If you choose **Calculate priorities for single facility**, then you must select the facility by pressing the button labeled **Facility**.

Next select which of the two calculation methods to use, either the Emissions and Potency Procedure or the Dispersion Adjustment Procedure, or both. If both methods are used, the total facility score will be the larger of the scores calculated by the two methods.

Next select whether you want the prioritization report to include a device-by-device breakdown of the scores. Although the CAPCOA guidelines to not provide any guidance on how to do this, the method employed by the program to calculate each device score closely resembles the algorithm used for calculating an entire facility score.

The prioritization database can be updated in two ways. First, you may select **Calculate Priority** from the facility editing window. This will update the priority for a single facility. Second, you may select Calculate/Update Priority Database from the prioritization window. This will either update a single facility priority or all facility priorities, depending on which of the two options is selected in the top portion of the window.

Once the priority database has been updated, you may print a report using one of three options under the Print menu:

Print/Preview Report   This will display the prioritization report in a preview window on the screen

Print/Print Report	This will create a prioritization report and send it directly to the printer.
Print/Print Report to File	This will create a prioritization report and send it to a file.

In order to calculate priority score each facility must have a value for receptor proximity, which is entered on the facility editing window. The program can calculate receptor proximities automatically by selecting *Utilities/Receptor Proximites* from the main menu, or by selecting the button labeled *Rec. Proximity* on the facility editing window. Note that in order to calculate the receptor proximity for a facility, you must enter property boundary data for the facility by selecting *Edit Data/Property Boundaries* from the main menu. To understand why property boundary data is required, refer to footnote B, Appendix C or footnote B, Appendix F in the CAPCOA prioritization guidelines.

7.5 Q/A Reports

The Q/A reports are intended to provide various checks on the consistency and completeness of the data contained in the database. The reports are accessed by selecting Reports/QA from the main window. The remainder of this section describes how to create these reports.

First specify which facilities you want to report by selecting one of the circular radio buttons on the left side of the window. If you select *Selected CO/AB/DIS*, then you must specify the County, Air Basin and District IDs in the text boxes on the left. Alternatively, you may select a COABDIS from a list by pressing the button labeled *Select CO/AB/DIS*.
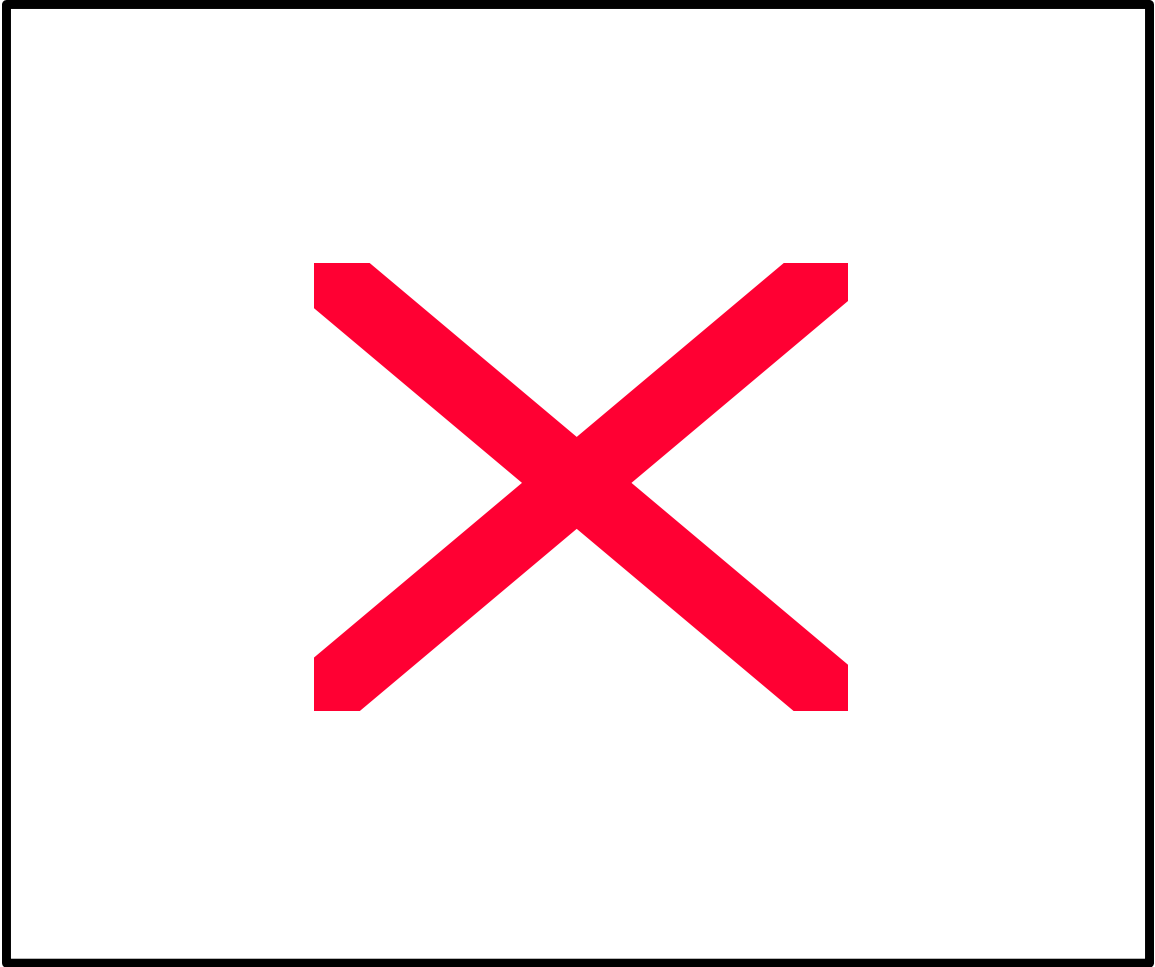
If you choose UTM Range, then you must specify a range of UTM coordinates on the text boxes on the left side of the window. The program will then generate a report which includes all facilities whose location falls within those UTM coordinate boundaries. In that case, the report will not include any facilities for which UTM coordinates have not been entered on the facility editing window (for details on editing facility data refer to section 6.2   Facility Data Window).

If you select *User Defined Facility List*, then you must enter the name of a facility list file in the text box in the lower right corner of the window. To edit a list of facilities or open a new list press the button labeled *Facilities List File*. This will call up the list editor, which will allow you to build your own list of facilities from the database. For details on using the list editor refer to section 5.3   List Editor.

Finally, you should select one or more of the eight report types shown on the right side of the window by checking the corresponding boxes.

To actually generate the report select one of these options under the *Print* menu:

Print/Preview   This will create the reports and display them in a preview window.

Print/To Printer   This will create the reports and send them directly to the printer.

Print/To File   This will create the reports and send them to a file.

7.6   Compare Two Years Report

This report is used to compare emissions from two different reporting years for one or more facilities. In order for this report to work, the database must contain data for the same facilities for two inventory reporting years. For a description of how to specify inventory reporting years and edit data from different years refer to section 9.1   Multi-year.

The report is accessed by selecting *Reports/Compare Two Years* from the main window. This will cause the following dialog window to be displayed. The remainder of this section describes how to create this report.

First specify which facilities you want to report by selecting one of the circular radio buttons on the left side of the window. If you select *Selected CO/AB/DIS*, then you must specify the County, Air Basin and District IDs in the text boxes on the left. Alternatively, you may select a COABDIS from a list by pressing the button labeled *Select CO/AB/DIS*.

If you choose UTM Range, then you must specify a range of UTM coordinates on the text boxes on the left side of the window. The program will then generate a report which includes all facilities whose location falls within those UTM coordinate boundaries. In that case, the report will not include any facilities for which UTM coordinates have not been entered on the facility editing window (for details on editing facility data refer to section 6.2   Facility Data Window).

If you select *User Defined Facility List*, then you must enter the name of a facility list file in the text box in the lower right corner of the window. To edit a list of facilities or open a new list press the button labeled *List File*. This will call up the list editor, which will allow you to build your own list of facilities from the database. For details on using the list editor refer to section 5.3   List Editor.

You can also generate a report for a single facility by selecting the radio button labeled *Selected Facility*. In this case you must specify the facility ID, County, Air Basin and District in the text boxes on the right, or select a facility from a list by pressing the button labeled *Select Facility*.

To actually generate the report, select one of these options under the *Print* menu:

Print/Preview   This will create the reports and display them in a preview window.

Print/To Printer   This will create the reports and send them directly to the printer.

Print/To File   This will create the reports and send them to a file.

8   Transactions

Transaction files are text files containing data that is being transferred from one database to another. The intent is that these files will primarily be used to transmit data from air pollution control districts to the CARB CEIDARS II database, as well as from the CARB database to the districts. The latter function should be useful for districts that want to initialize their CEIDARS LITE database with historical data given to them by CARB. The mechanism for actually transmitting the transaction files is expected to be either by e-mail, or on floppy disk through regular mail.

HARP provides a simple way to create (export) and read (import) transaction files. To access this feature, select either *Transactions/Import* or *Transaction/Export* from the main menu.

8.1 Transaction Export

To create a transaction file from the database select **Transactions/Export** from the main menu. The following dialog window will appear. The remainder of this section describes how use this window.

First specify which facilities you want to include in the exported transaction file by selecting one of the circular radio buttons on the left side of the window. If you select **Selected CO/AB/DIS**, then you must specify the County, Air Basin and District IDs in the text boxes on the left. Alternatively, you may select a COABDIS from a list by pressing the button labeled **Select CO/AB/DIS**.

If you choose **UTM Range**, then you must specify a range of UTM coordinates on the text boxes on the left side of the window. The program will then generate a transaction file that includes all facilities whose location falls within those UTM coordinate boundaries. In that case, the transaction file will not include any facilities for which UTM coordinates have not been entered on the facility editing window (for details on editing facility data refer to section 6.2   Facility Data Window).

If you select *User Defined Facility List*, then you must enter the name of a facility list file in the corresponding text box . To edit a list of facilities or open a new list press the button labeled *List File*. This will call up the list editor, which will allow you to build your own list of facilities from the database. For details on using the list editor refer to section 5.3 List Editor.

If you select All Facilities, then the transaction file will include data for all facilities in the current reporting year.

In the box labeled **Time Period** you may optionally enter a date. The transaction file will then only include data for facilities which have been modified after the data you specify. Typically, the data which you specify will be the date on which the last transaction file was sent to CARB (or whomever you are sending it to).   This can substantially reduce the size of the transaction file and the time required to export and import the data. For example, if you know that you sent a complete transaction file to CARB in February 1997, but you wish to update their database so that it is current with yours, then you could enter a date of 2/1/97. Then the transaction file will only include those facilities which have changed since February. There is no point is sending them data which was last modified before that date, since it should already be current on the CARB system. If you do not know when the last exported transaction was done, or you want to be certain that both systems match, simply leave the date field blank. This will cause all selected facilities to be exported regardless of the date they were last modified.

When you are ready to create the transaction file, select the *Export* menu option. You will be prompted for the name of the transaction file that you want to create. All transaction files are assumed to have an extension of CHG (short for "change"). Transaction files are comma-delimited files which can be read with a text editor or imported into a spreadsheet in case you wish to review the contents.

8.2   Transaction Import

This function is the inverse of the Transaction Export function described in the previous section. To import data from a transaction file into the database, select *Transactions/Import* from the main menu. The following dialog window will appear.

```
┌─────────────────────────────────────────────────────────────────────┐
│ Import Changes from Transaction File                                  │
│ Import Data   Exit                                                    │
│                                                                       │
│                                                                       │
│    Most recent transaction file name   D:\Harp5\Source\Toxic11.txt    │
│                                                                       │
│    Date File Imported              4/19/97 11:36:38 AM                │
│                                                                       │
│    ☐  Check here for validation only (transaction data will not be imported) │
│                                                                       │
│  ┌─────────────────────────────────────────────────────────────────┐ │
│  │ messages                                                          │ │
│  └─────────────────────────────────────────────────────────────────┘ │
└─────────────────────────────────────────────────────────────────────┘
```
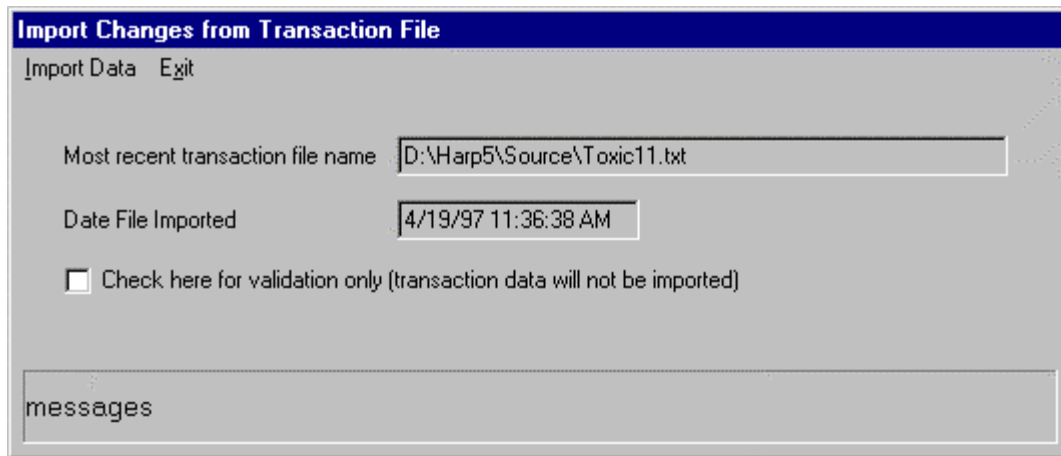
To read a transaction file and validate the date without actually importing it into the database, check the box labeled *Check here for validation only*. This will prevent any changes to your database, but will check the input file for any errors or inconsistencies.

When you are ready to import the transaction file, select *Import Data* from the menu. You will be prompted for the name of the file that you want to import.

Importing of transaction data is a three step process. In the first step, the transaction data file is read and the data is copied into temporary tables in the database which resemble the permanent tables in structure. Any errors in syntax, format or order of imported data values will be found at this time. If any error occurs the process is terminated and the permanent database tables remain unchanged.

In the second step of the import process, the data records contained in the temporary tables are checked against existing data in the permanent tables to determine if there are any conflicts involving missing or redundant key fields. Once again, if any error occurs the process is terminated and the permanent database tables remain unchanged.

In the third step of the import process, the validated data records are copied from the temporary tables to the permanent tables, thus completing the entire process.

Any records in the transaction file that already exist in the database are overwritten with new data values. Any records in the transaction file that do not already exist in the database are added.

When data is imported from a transaction file, it will be stored in whatever reporting year is currently selected. For a description of how the program handles multiple reporting years refer to section 9.1
        Multi-year.

9 Utilities

9.1 *Multi-year*

HARP can keep track of multiple reporting years within the same database. For the purpose of data editing and reporting, each year is completely independent, just as if it were contained is a separate database altogether. The multi-year utility functions of HARP make it possible to manipulate data from different years. To access these functions select *Utilities/Multi-year* from the main menu. This will cause the following dialog window to be displayed.
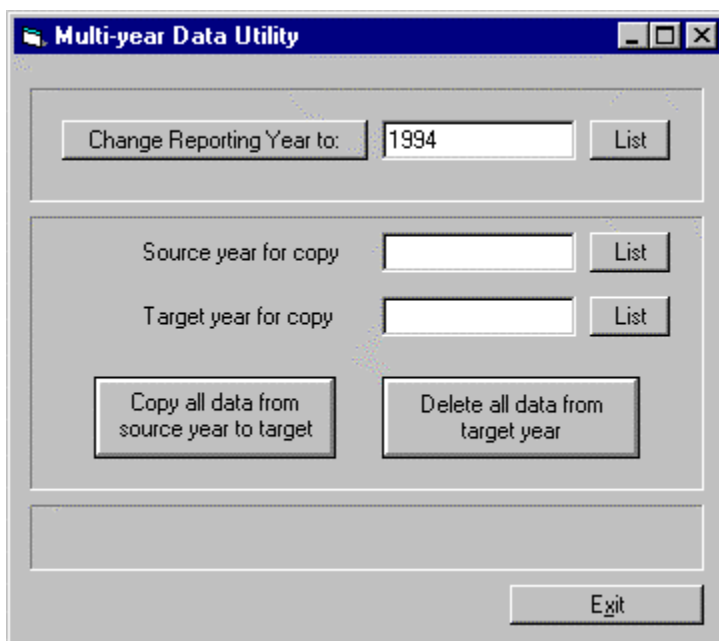
To change the current reporting year, enter a year in the text box at the top of the window and press the button labeled *Change Report Year to*. Henceforth, all data editing and reporting functions will utilize data from that year. The program will remember the current reporting year even if you exit the program and reboot the computer. The current reporting year will remain the same until you repeat the steps described here to change it.

If you cannot remember what reporting years are stored in the database, you can press the top button labeled *List* next to the reporting year box to select one the years stored in the database.

You can copy all data from one reporting year to another by entering the year you want to copy data from in the box labeled *Source year for copy*, and entering the year you want to copy data to in the box labeled *Target year for copy*. Then press the button labeled *Copy all data from source year to target year*. This provides a convenient way to start a new reporting year and initialize it with data from a previous year. Any differences between the two years can then be reported by using the *Compare Two Years* report (refer to section 7.6   Compare Two Years).
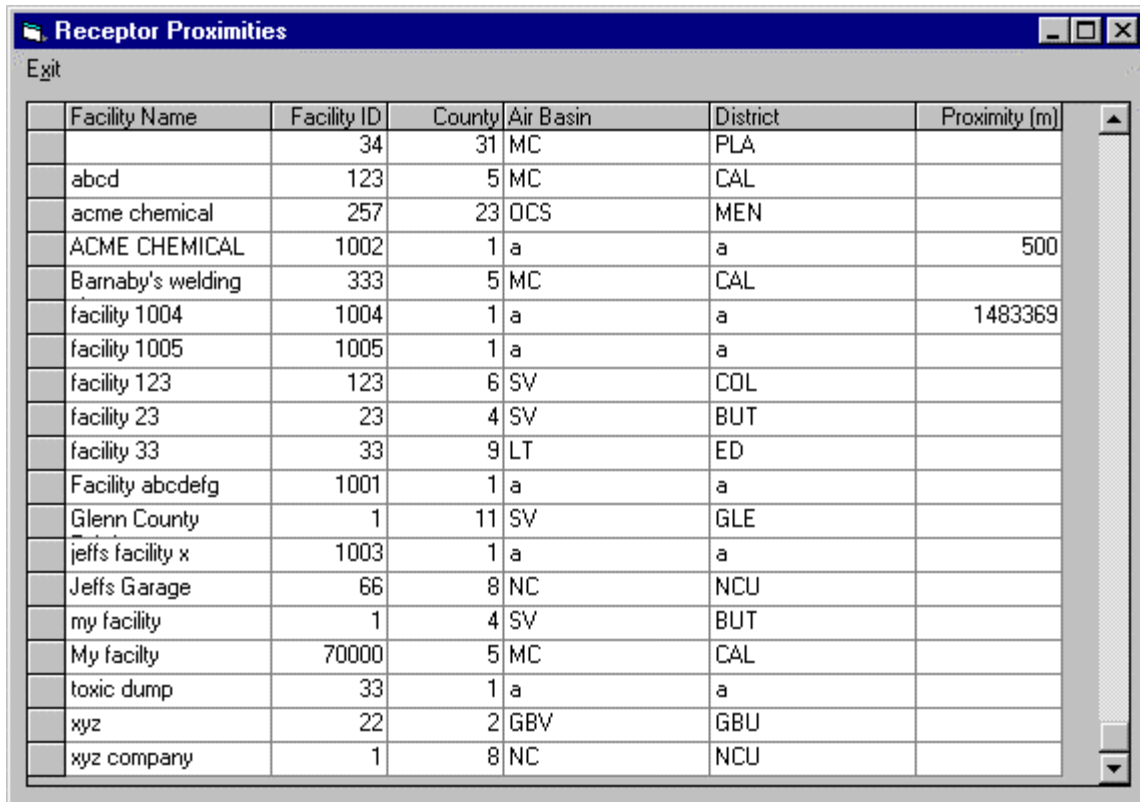
When changing to a new reporting year, you do not necessarily have to specify a year for which you currently have data. If there is no data for the year you specify, it is equivalent to creating an empty database for that year. This can be a convenient way to create a "scratch" area to enter real or fictitious data for test purposes. Simply specify a nonsensical reporting year such as 1001. You can then edit data for that year, copy data to that year from some other year, or import data from transaction files into that year without worrying about corrupting your actual permanent data. When you want to remove one of these scratch years from the database, enter the year in box labeled *Target year for copy* and then press the button labeled *Delete all data from target year*. (It would be wise to occasionally backup your entire database, which is contained in the file CEIDARS.MDB.)

9.2   Receptor Proximities

Each facility has associated with it a receptor proximity, which is used in the prioritization calculations (refer to section 7.4   Prioritization). There are two ways to edit the receptor proximities. The first is to enter a value for each facility on the facility editing window. The other way to select *Utilities/Receptor Proximities* from the main menu. The receptor proximity dialog window is shown below.
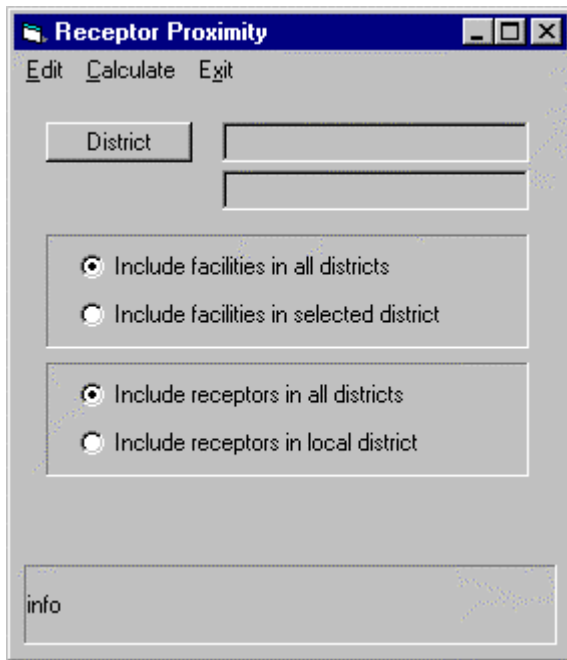
When you select the Edit option, a scrolling list of all facilities is displayed as shown below. The right hand column contains the receptor proximities, which can be edited directly by moving the cursor to this column, entering new values.

Facility Name	Facility ID	County	Air Basin	District	Proximity (m)
	34	31	MC	PLA	
abcd	123	5	MC	CAL	
acme chemical	257	23	OCS	MEN	
ACME CHEMICAL	1002	1	a	a	500
Barnaby's welding	333	5	MC	CAL	
facility 1004	1004	1	a	a	1483369
facility 1005	1005	1	a	a	
facility 123	123	6	SV	COL	
facility 23	23	4	SV	BUT	
facility 33	33	9	LT	ED	
Facility abcdefg	1001	1	a	a	
Glenn County	1	11	SV	GLE	
jeffs facility x	1003	1	a	a	
Jeffs Garage	66	8	NC	NCU	
my facility	1	4	SV	BUT	
My facilty	70000	5	MC	CAL	
toxic dump	33	1	a	a	
xyz	22	2	GBV	GBU	
xyz company	1	8	NC	NCU	

The program will calculate receptor proximities automatically when you select the *Calculate* menu option. You use the circular radio buttons to specify whether you want the calculation to be performed for all facilities and receptors in the database, or only for facilities and receptors in a single district. In the latter case, you must specify the district by clicking on the button labeled *District*. As receptor proximities are calculated the facility table is updated with the new values. Therefore you should be careful not to unintentionally perform this calculation and overwrite receptor proximities that have been manually entered.

Note that in order to calculate the receptor proximity for a facility, you must enter property boundary data for the facility by selecting *Edit Data/Property Boundaries* from the main menu. To understand why property boundary data is required, refer to footnote B, Appendix C or footnote B, Appendix F in the CAPCOA prioritization guidelines.

Appendix A – HARP Data Tables

The following pages are a list of the data tables and fields which are of primary interest to users who may which to build custom reports or queries.

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
ID	Number (Integer)	2
DESCRIPTION	Memo	-
HEIGHT	Number (Single)	4
ELEVATION	Number (Single)	4
NPTS	Number (Integer)	2

Table Indexes

Name	Number of Fields
PrimaryKey	5

Fields: CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
ID, Ascending

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
ID	Number (Integer)	2
POINTID	Number (Integer)	2
PLOTORDER	Number (Integer)	2
UTME	Number (Double)	8
UTMN	Number (Double)	8

Table Indexes

Name	Number of Fields
PrimaryKey	6

Fields: CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
ID, Ascending
POINTID, Ascending

Columns

Name	Type	Size
SCC	Number (Double)	8
SIC	Number (Double)	8
EIC	Number (Double)	8
REIC	Number (Double)	8
GRO	Number (Double)	8
CTL	Number (Double)	8
PMPROF	Number (Double)	8
FRPM2_5	Number (Double)	8
FRPM10	Number (Double)	8
OLDINV	Number (Double)	8
ORGCAT	Number (Double)	8
ORGPROF	Number (Double)	8
FROG	Number (Double)	8
FRVOC	Number (Double)	8
CES	Number (Double)	8
CATU	Text	24
PMPROFU	Text	24
ORGCATU	Text	24
ORGPROFU	Text	24
TYPE	Text	2

Table Indexes

Name	Number of Fields
PrimaryKey	2
Fields:	SCC, Ascending
	SIC, Ascending

APPENDIX A

Columns

Name	Type	Size
CO	Number (Integer)	2
CNTY	Number (Integer)	2
TRACTBNA	Text	6
POP	Number (Long)	4
LATITUDE	Number (Double)	8
LONGITUDE	Number (Double)	8
UE	Number (Double)	8
UN	Number (Double)	8
UZ	Number (Integer)	2
ELEVATION	Number (Double)	8

Table Indexes

Name	Number of Fields
PrimaryKey	2

       Fields: CO, Ascending
                      TRACTBNA, Ascending

Columns

Name	Type	Size
CO	Number (Integer)	2
AB	Text	3
ABN	Text	30
CON	Text	15
COID	Text	3
DIS	Text	3
DISN	Text	35
REPAB	Text	3
MERGE_STAT	Text	1

Table Indexes

Name	Number of Fields
PrimaryKey	3

        Fields: CO, Ascending
                                      AB, Ascending
                                      DIS, Ascending

APPENDIX A

82

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
DEV	Number (Long)	4
YEAR	Number (Integer)	2
AIRS_POINT	Text	3
DEVNM	Text	20
NUMDEV	Number (Long)	4
DEVSUBCO	Text	4
SECT	Number (Byte)	1
TWNSHP	Number (Byte)	1
TWNSHPB	Text	1
RANGE	Number (Byte)	1
RANGEB	Text	1
DEVD1	Text	10
DEVD2	Text	10
PERID	Text	16
DEVU	Date/Time	8
EQSIZE	Number (Double)	8
EQSIZE_CF	Text	1
EQUNITC	Number (Long)	4
EQTYPEC	Number (Long)	4
CANCEREPP	Number (Single)	4
NONCANCEREPP	Number (Single)	4
ACUTEEPP	Number (Single)	4
CHRONICEPP	Number (Single)	4
CANCERDAP	Number (Single)	4
NONCANCERDAP	Number (Single)	4
ACUTEDAP	Number (Single)	4
CHRONICDAP	Number (Single)	4

Table Indexes

Name	Number of Fields
PrimaryKey	6

Fields: CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
DEV, Ascending
YEAR, Ascending

APPENDIX A

83

Columns

Name	Type	Size
EIC	Number (Double)	8
EICSUM	Number (Double)	8
EICSUMN	Text	60
EICSOU	Number (Double)	8
EICSOUN	Text	60
EICMAT	Number (Double)	8
EICMATN	Text	60
EICSUB	Number (Double)	8
EICSUBN	Text	60
EIC1	Number (Double)	8
EIC1N	Text	40
DIS_UPD_AU	Text	1

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
DEV	Number (Long)	4
PROID	Number (Double)	8
POL	Number (Long)	4
YEAR	Number (Integer)	2
FRAC_1	Number (Single)	4
FRAC_2	Number (Single)	4
EMFACT	Number (Double)	8
UEMFACT	Number (Double)	8
EMS	Number (Double)	8
EXEMS	Number (Double)	8
UNREMS	Number (Double)	8
EMORIG	Number (Integer)	2
EMREL	Number (Integer)	2
EMSU	Date/Time	8
EMFACUP	Date/Time	8
EMFACUPID	Text	10
EMSUP	Date/Time	8
EMSUPID	Text	10
CNTL1	Number (Integer)	2
CNTL2	Number (Integer)	2
REASCH	Number (Byte)	1
METH	Number (Byte)	1
HRMAXEMS	Number (Double)	8
CNTLEFF	Number (Single)	4
EMS_FORECAST	Text	1
POTENTIAL	Number (Double)	8
ARBFR1	Number (Double)	8
ARBFR2	Number (Double)	8

Table Indexes

Name	Number of Fields
PrimaryKey	8

Fields:
CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
DEV, Ascending
PROID, Ascending
POL, Ascending
YEAR, Ascending

APPENDIX A   85

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
YEAR	Number (Integer)	2
FSIC	Number (Integer)	2
FACSUBCO	Text	4
FZIP	Number (Long)	4
FZIPEXT	Number (Integer)	2
MZIP	Number (Long)	4
MZIPEXT	Number (Integer)	2
FCC	Number (Long)	4
AQCR	Number (Byte)	1
AREAC	Number (Integer)	2
PHONE	Number (Long)	4
NEMP	Number (Long)	4
UZ	Number (Byte)	1
UE	Number (Double)	8
UN	Number (Double)	8
FACU	Date/Time	8
FACD1	Text	9
FACD2	Text	9
CODESIG	Text	1
NO2DESIG	Text	1
OZDESIG	Text	1
PMDESIG	Text	1
SO2DESIG	Text	1
PCONTACT	Text	24
FNAME	Text	30
FSTREET	Text	30
FCITY	Text	20
MCONTACT	Text	24
MNAME	Text	30
MSTREET	Text	30
MCITY	Text	20
MSTATE	Text	2
FAC_PHASE	Text	2
FAC_STATUS	Text	1
FAC_FORECAST	Text	1
PRIORITY	Text	1
INDUSTRYWIDE	Text	1
PROXIMITY	Number (Single)	4
CANCEREPP	Number (Single)	4
NONCANCEREPP	Number (Single)	4
ACUTEEPP	Number (Single)	4
CHRONICEPP	Number (Single)	4

APPENDIX A

86

CANCERDAP	Number (Single)	4
NONCANCERDAP	Number (Single)	4
ACUTEDAP	Number (Single)	4
CHRONICDAP	Number (Single)	4
TS	Number (Single)	4

Table Indexes

Name	Number of Fields
PrimaryKey	5

Fields: CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
YEAR, Ascending

Columns

Name	Type	Size
POL	Number (Long)	4
DISPLAYORDER	Number (Long)	4
POLN	Text	80
POLABBREV	Text	15
ACENO	Number (Integer)	2
POLALTN1	Text	80
POLALTN2	Text	80
RPT_GROUP	Text	80
RPT_ALPHA	Text	80
ALPHA_POL	Text	80
HAPS	Text	1
REG_SUBST	Text	1
SELECTED_GRP	Number (Byte)	1
FORMULA	Text	25
SAROAD	Number (Double)	8
IUPAC	Text	80
ADD_DATE	Text	30
DROP_DATE	Text	30
CHANGE_DAT	Text	30
DELETED	Text	1
FEECAT	Number (Double)	8
TOXAPPEN	Text	5
BIOCIDE	Text	1
PHARM	Text	1
CARCIN	Text	1
DEG_ACC	Number (Double)	8
MOLE_WT	Number (Double)	8
MELT_PT	Number (Double)	8
BOIL_PT	Number (Double)	8
AUTOIG	Number (Double)	8
SUBLI	Number (Double)	8
SPECG	Number (Double)	8
VAPOR	Number (Double)	8
VPTEMP	Number (Double)	8
CHEMSTATE	Text	2
DENSITY	Number (Double)	8
POTENCY	Number (Double)	8
POTENCYORAL	Number (Double)	8
RELACUTE	Number (Double)	8
RELCHRONIC	Number (Double)	8
RELORAL	Number (Double)	8

Table Indexes

Name	Number of Fields

APPENDIX A　　　　　　　　　　　　　　　　　　　　　　　　　　　　88

PrimaryKey　　　　　　　　　　　　　　1
　　　Fields:　　　　　　　　　　POL, Ascending

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
DEV	Number (Long)	4
PROID	Number (Double)	8
YEAR	Number (Integer)	2
SCC	Number (Double)	8
SIC	Number (Double)	8
STK	Number (Long)	4
JANT	Number (Single)	4
FEBT	Number (Single)	4
MART	Number (Single)	4
APRT	Number (Single)	4
MAYT	Number (Single)	4
JUNT	Number (Single)	4
JULT	Number (Single)	4
AUGT	Number (Single)	4
SEPT	Number (Single)	4
OCTT	Number (Single)	4
NOVT	Number (Single)	4
DECT	Number (Single)	4
DPWK	Number (Byte)	1
HPDY	Number (Byte)	1
WPYR	Number (Byte)	1
PR	Number (Single)	4
PRUNITS	Number (Integer)	2
UPR	Number (Double)	8
MAXD	Number (Double)	8
MAXHR_PR	Number (Double)	8
S	Number (Single)	4
PRTU	Date/Time	8
PRUP	Date/Time	8
PRUPID	Text	10
YREST	Number (Integer)	2
SEST	Text	6
PROD1	Text	16
PROD2	Text	8
CONF	Text	1
PRDESC	Text	40
PRORIG	Number (Integer)	2
PRREL	Number (Integer)	2
SPATIAL	Text	8
PR_FORECAST	Text	1

APPENDIX A

90

Table Indexes

Name	Number of Fields
PrimaryKey	7

        Fields: CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
DEV, Ascending
PROID, Ascending
YEAR, Ascending

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
ID	Number (Integer)	2
DESCRIPTION	Memo	-
NPTS	Number (Integer)	2

Table Indexes

Name	Number of Fields
PrimaryKey	5

Fields: CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
ID, Ascending

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
ID	Number (Integer)	2
POINTID	Number (Integer)	2
PLOTORDER	Number (Integer)	2
UTME	Number (Double)	8
UTMN	Number (Double)	8
ELEVATION	Number (Single)	4

Table Indexes

Name	Number of Fields
PrimaryKey	6

Fields: CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
ID, Ascending
POINTID, Ascending

APPENDIX A

93

Columns

Name	Type	Size
RECID	Number (Long)	4
CO	Number (Integer)	2
AB	Text	3
DIS	Text	3
RECNAME	Text	50
RECTYPE	Text	3
UZ	Number (Integer)	2
UE	Number (Double)	8
UN	Number (Double)	8
ELEV	Number (Single)	4
POPRES	Number (Long)	4
POPWORK	Number (Long)	4

Table Indexes

Name	Number of Fields
PrimaryKey	4

Fields: RECID, Ascending
CO, Ascending
AB, Ascending
DIS, Ascending

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
POL	Number (Long)	4
YEAR	Number (Integer)	2
USED	Text	1
PRODUCED	Text	1
PRESENT	Text	1
HOW_PRESENT	Text	39
S_UPU	Date/Time	8

Table Indexes

Name	Number of Fields
PrimaryKey	6

    Fields: CO, Ascending
                    FACID, Ascending
                    AB, Ascending
                    DIS, Ascending
                    POL, Ascending
                    YEAR, Ascending

APPENDIX A

95

Columns

Name	Type	Size
SCC	Number (Double)	8
SCC3	Number (Double)	8
SCC6	Number (Double)	8
COE	Number (Double)	8
NOXE	Number (Double)	8
SOXE	Number (Double)	8
VOCE	Number (Double)	8
PME	Number (Double)	8
PRO	Number (Double)	8
EAM	Number (Double)	8
SCC1N	Text	20
SCC3N	Text	20
SCC6N	Text	20
SCC8N	Text	20
SCCD	Text	11
SCCUN	Text	25
DIM	Text	23
DIMN1	Text	30
DIMN2	Text	30
DIMN3	Text	30
DIMN4	Text	30
RESPAG	Text	1
SCCU	Text	30
SCCCRE	Text	30
SCCDEL	Text	30
DELSCC	Text	1

Table Indexes

Name	Number of Fields
SCC	1
Fields:	SCC, Ascending

APPENDIX A   96

Columns

Name	Type	Size
SIC	Number (Double)	8
SIC2	Number (Double)	8
SIC3	Number (Double)	8
ACT	Number (Double)	8
SICU	Text	30
SICN	Text	30
SIC2N	Text	30
SIC3N	Text	30
SIC4N	Text	30
SUBACT	Text	5
SICCRE	Text	30
SICDEL	Text	30
DELSIC	Text	1

APPENDIX A

97

Columns

Name	Type	Size
CO	Number (Integer)	2
FACID	Number (Long)	4
AB	Text	3
DIS	Text	3
STK	Number (Long)	4
YEAR	Number (Integer)	2
AIRS_STACK	Number (Integer)	2
SUTME	Number (Double)	8
SUTMN	Number (Double)	8
STKHT	Number (Single)	4
STKDIAM	Number (Single)	4
GV	Number (Single)	4
GT	Number (Single)	4
GF	Number (Single)	4
STKU	Date/Time	8
ELEV	Number (Double)	8
STACKNAME	Text	30

Table Indexes

Name	Number of Fields
PrimaryKey	6

Fields:
CO, Ascending
FACID, Ascending
AB, Ascending
DIS, Ascending
STK, Ascending
YEAR, Ascending

APPENDIX A

98

Appendix B – Sample Reports

User-specified list of facilities

FACILITY	NAME	FSIC			
	ADDRESS				
			TOXIC SUBSTANCE	EMITTENT ID	EMISSIONS (LBS/YR)
	CITY	ZIP			
1002	ACME CHEMICAL	132	[D] Arsenic compounds (inorganic) [Deleted/Obsolete Emitte	1015	25.0
	2300 BOSWELL RD., SUITE 210		[D] Beryllium compounds [Deleted/Obsolete Emittent ID]	1021	1
	CHULA VISTA	91914	Analgesic mixtures containing phenacetin	1005	24.0
			Androgenic (anabolic) steriods	1010	25.0
			Benzidine-based dyes	1020	25.0
			Betel quid with tobacco	1025	25.0
			Bleomycins	1035	0.0
			CARBON MONOXIDE	42101	0.0
			Chlorobenzenes	1058	1
			Creosotes	1070	1
			Methyl chloroform {1,1,1-TCA}	71556	0.0
			SULFUR DIOXIDE	42401	0.0
1004	facility 1004	919	[D] Arsenic compounds (inorganic) [Deleted/Obsolete Emitte	1015	25.0
			Analgesic mixtures containing phenacetin	1005	25.0
			Androgenic (anabolic) steriods	1010	25.0
			Arsenic compounds (other than inorganic)	1017	0.0
			Benzidine-based dyes	1020	25.0
			Betel quid with tobacco	1025	25.0
			Bitumens, extracts of steam-refined and air-refined bitumen	1030	0.0
			Creosotes	1070	0.0
			PARTICULATE MATTER	11101	0.0
			SULFUR DIOXIDE	42401	0.0
			TOTAL ORGANIC GAS	43101	0.0
1005	facility 1005	0	[D] Arsenic compounds (inorganic) [Deleted/Obsolete Emitte	1015	25.0
			Analgesic mixtures containing phenacetin	1005	25.0
			Androgenic (anabolic) steriods	1010	25.0
			Benzidine-based dyes	1020	25.0
			Betel quid with tobacco	1025	25.0
1001	Facility abcdefg	116	[D] Arsenic compounds (inorganic) [Deleted/Obsolete Emitte	1015	28.0
			Analgesic mixtures containing phenacetin	1005	25.0
			Androgenic (anabolic) steriods	1010	27.0
			Azobenzene	103333	1.5
			Benzidine-based dyes	1020	29.0
			Betel quid with tobacco	1025	30.0

APPENDIX B

AIR TOXIS EMISSIONS DATA SYSTEM
SUMMARY FOR INVENTORY YEAR 1996

PROCESS SUMMARY

User-specified facility list from file: D:\HarpDev\Source\facil3.fac

```
FACILITY  FACILITY NAME & ADDRESS
--------- ----------------------
          DEVICE       SCC        SCC NAME 1           SIC   SIC DESCRIPTION
          ------  --------------  ------------------   ----  --------------------
                                  SCC NAME 3           PRCESS DESC (REPORTED BY FAC)
                                  ------------------   ------------------------      EMISSIONS (LBS/YR)   [SEE NOTES 1 & 2]
                                  SCC NAME 6           PROCESS UNITS (DITTO)    --------------------------------------------------------------
                                  ------------------   ------------------------
                                  SCC NAME 8           CONF.[NOTE3]  PROCESS RATE  [D] As /in Aflatoxins Analgesics Androgenic Benzi dyes
                                  ------------------   -----------   -------------  ---------- ---------- ---------- ---------- ----------
```

FACILITY						As /in	Aflatoxins	Analgesics	Androgenic	Benzi dyes
22	xyz									
	45	46425	OIL PRODUCTION	1311 CRUDE PETROLEUM, NATU		0.0	1	0.0	0.0	0.0
			FUGITIVE LOSSES	first process						
			(UNSPECIFIED)	1000 BARRELS PRODUCED						
				1						
	SUBTOTAL FACILITY 22					0.0	1	0.0	0.0	0.0
23	facility 23									
	123	46425	OIL PRODUCTION	111 WHEAT		0.0	3.0	0.0	0.0	0.0
			FUGITIVE LOSSES	first process						
			(UNSPECIFIED)	1000 BARRELS PRODUCED						
				1						
	SUBTOTAL FACILITY 23					0.0	3.0	0.0	0.0	0.0
GRAND TOTAL						0.0	4.0	0.0	0.0	0.0

APPENDIX B   101

AIR TOXIS EMISSIONS DATA SYSTEM
                                                SUMMARY FOR YEAR 1994

                                        EMISSIONS BY SOURCE AND CONTROL CATEGORY

User-specified list of facilities

SOURCE CATEGORY

    C-CONTROL NAME

        MATERIAL & ENTRAINMENT NAME   PROCESS NAME   EMISSIONS (LBS/YR)
        ------------------------------- --------------------------   --
            SCC1 NAME   SCC3 NAME   SCC6 NAME   SCC8 NAME   SCC   [D] As /in Aflatoxins Analgesics Androgenic Benzi dyes
            ---------------- ---------------- ---------------- ---------------- ----------------- ---------- ---------- ---------- ---------- ----------

PETROLEUM PROCESS, STORAGE & TRANSFER

    C99-UNSPECIFIED
        PROCESS LOSS   PETROLEUM & RELATED
            OIL PRODUCTION   FUGITIVE LOSSES   (UNSPECIFIED)   46425   1   1   1   1   1

GRAND TOTAL PETROLEUM PROCESS, STORAGE & TRANSFER   1   1   1   1   1

APPENDIX B   102

Facility Prioritization for District a

| Fac ID | Description | Emission and Potency Procedure | | | | Dispersion Adjustment Procedure | | | | Total |
		Cancer	Acute	Chronic	NonCancer	Cancer	Acute	Chronic	NonCancer	Score
1002	device 1	1.225	0.000	0.000	0.000	1.211	0.000	0.000	0.000	
1002	device 2	1.218	0.000	0.000	0.000	1.204	0.000	0.000	0.000	
1002	device 3	1.218	0.000	0.000	0.000	1.204	0.000	0.000	0.000	
1002	device 4	1.218	0.000	0.000	0.000	1.204	0.000	0.000	0.000	
1002	device 5	1.218	0.000	0.000	0.000	1.204	0.000	0.000	0.000	
1002	ACME CHEMICAL	6.097	0.000	0.000	0.000	6.025	0.000	0.000	0.000	6.097

APPENDIX B